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CEYLON

A HANDBOOK FOR THE RESIDENT AND THE TRAVELLER

BY

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(Director of the Royal Botanic Gardens, Peradeniya.)

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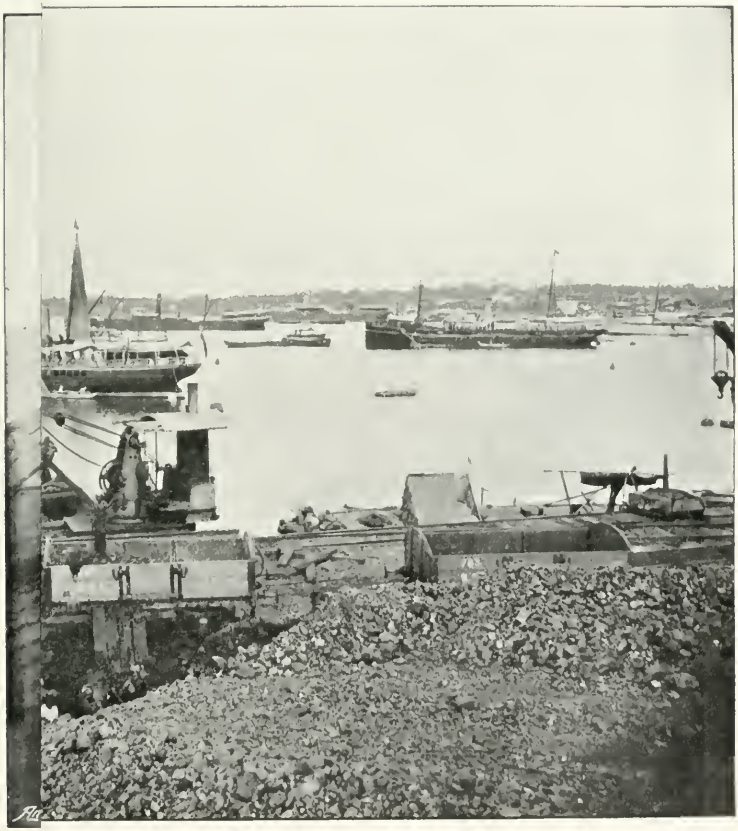


opinions upon things, and consequently the book could have

COLOMBO HARBOUR

PREFACE.

SOON after my arrival in Ceylon in 1896, I was forcibly struck with the absence of any reliable modern handbook of the island, and about seven years ago began to collect notes for such a book, jotting down upon memorandum tablets all those items which I considered ought to be included. As these accumulated, they were sorted under heads, and the chapters gradually took shape in outline. After 1901 two or three books upon the island appeared, notably the excellent handbook for the St. Louis Exhibition, which in some ways fulfilled my idea of what was wanted, but was written for people outside the colony. Having in vain endeavoured to persuade one who was much better qualified than myself to write a book upon Ceylon, I at last decided to do so, and began in 1905, but was interrupted by a serious accident.

Commencing with the idea of writing a comprehensive work of perhaps 1,000 pages, I devoted my leisure from October 1905 to a chapter on the agriculture of the colony. To get this into a form comparatively satisfactory to myself took no less than eight months, and it would have covered 125 pages of the present book. It consequently seemed to me advisable to work this up into a book upon agriculture in the tropics generally. This was done, and the book will, I hope, shortly appear. If now my own subject were to take so long, and occupy so much space, it was very evident that I could not hope to complete the work under 10 years, and when completed, it would be so bulky that no one would read it, while the keeping up to date of the chapters already written would be a most formidable task. Not only so, but my position as a Government servant debarred me from freely expressing my opinions upon things, and consequently the book could have

but little value. Again, Mr. Still was writing about the ruins, Dr. Coomaraswamy about the art, Mr. Storey about the sport, and so on. I therefore decided to curtail my book, and to write a strictly elementary account of the island, dealing with every subject in as popular a manner as was consistent with accuracy, avoiding the exaggerations and mis-statements which are only too common in books upon Ceylon.

That my book is as accurate as it is—for I cannot hope to have escaped errors—I owe to the kind help of many friends who have read the manuscript of the different chapters, and added many corrections and notes. I would most especially thank the Hon. Mr. J. P. Lewis, C. C. S., Government Agent of Kandy; Mr. Herbert White, C. C. S., Government Agent of Badulla; Mr. J. Harward, C. C. S., Director Public Instruction; Mr. H. W. Codrington, C. C. S., Assistant Government Agent of Kegalle; Mr. T. J. St. A. Campbell, Conservator of Forests; Mr. H. T. S. Ward, Director of Irrigation; Dr. A. Willey, Director of the Colombo Museum; Mr. J. Parsons, Director of the Mineral Survey; and Mr. E. E. Green, Government Entomologist. I cannot hope to have pleased all these gentlemen with what I have written, but I am indebted to them for its comparative freedom from error. Mr. Harry Storey has very kindly written for me the chapter upon sport with the gun, and I am also much indebted to Sir Everard im Thurn for allowing me to copy his very interesting sketch of the Pearl Fishery. To my wife I owe a very considerable amount of help; she has especially relieved me of some of the most wearisome parts of the work, such as preparing the index, tables, &c. In order to secure as complete accuracy as possible as soon as may be, only a small edition has been printed, and I shall be most grateful for corrections or notes towards a second.

The attractiveness of the book is greatly enhanced by the numerous excellent illustrations, and my most grateful thanks are due to the Government for the loan of the blocks from the Handbooks for the Paris and St. Louis Exhibitions, and to

the Colombo Apothecaries' Co., Mr. J. S. Gardiner, and Messrs. F. Skeen & Co., for others. I have also much pleasure in expressing my acknowledgment of the admirable manner in which the Printing Department of the Colombo Apothecaries Co. has executed the work.

In order to make the book as useful as possible to the traveller as well as to the resident, I have incorporated an account of the roads, railways, and towns as well as general reference information.

J. C. W.

Peradeniya,
November, 1907.

CONTENTS.

PART I.—PHYSICAL FEATURES.

Chapter I. Geology and Geography.
II. The Climate.
III. Zoology.
IV. Botany, Vegetation and Agriculture.
V. The Forests.
VI. Irrigation.

PART II.—HISTORY, PEOPLE, ARCHÆOLOGY, &c.

Chapter VII. History.
VIII. The People, their races, customs, religions, &c.
IX. Archæology.
X. Government.

PART III.—DESCRIPTIVE.

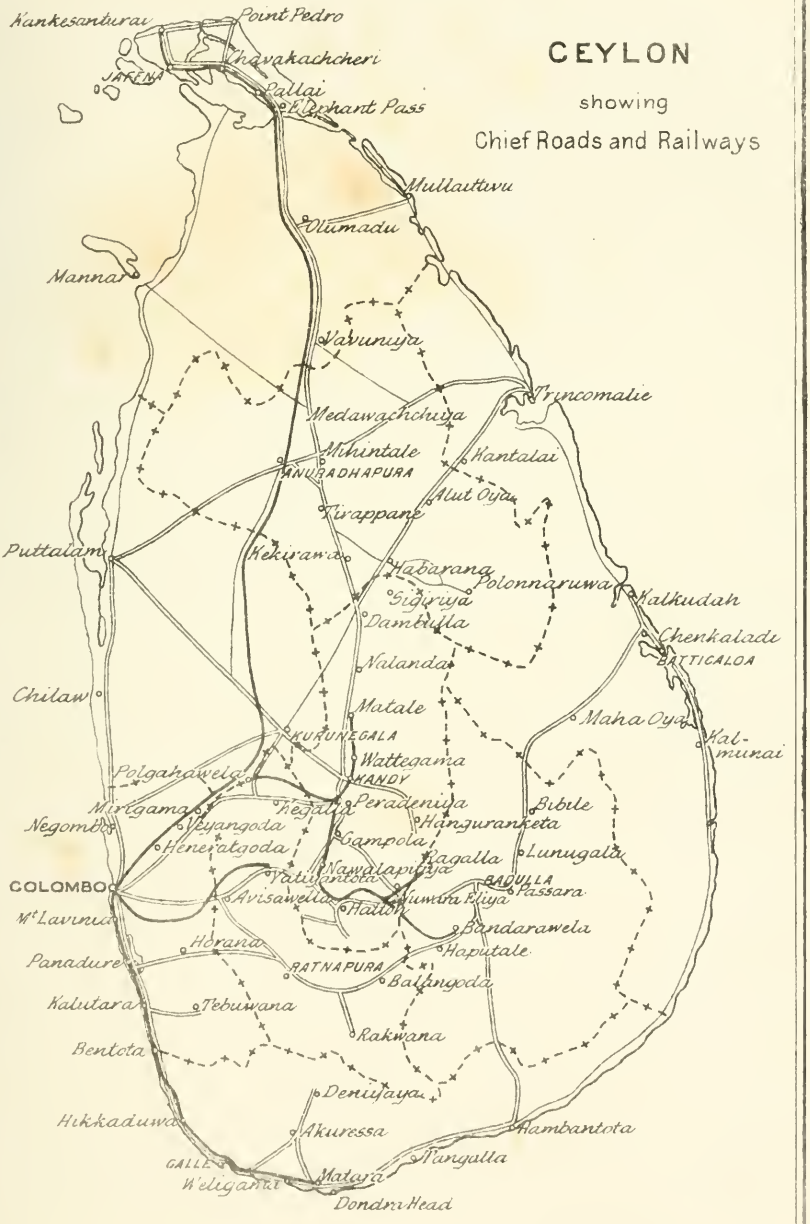
Chapter XI. The Roads.
XII. The Railways.
XIII. The Chief Towns, Villages, Planting Districts, &c., alphabetically arranged.

PART IV.—SPORT.

Chapter XIV. Sport with the Gun, by Harry Storey.
XV. Games and Sports.

PART V.—MISCELLANEOUS.

Chapter XVI. Common words used in unusual senses, &c.
XVII. Notes as to Health, Clothing, &c.
XVIII. Literature.


CEYLON
showing
Chief Roads and Railways
Kankesanturai
Point Pedro
Chavakachcheri
JAFFNA
Pallai
Elephant Pass
Mullaittivu
Ulumadu
Mannar
Vavuniya
Trincomalie
Medawachchiya
Mihintale
ANURADHAPURA
Kantalai
Alut Oya
Tirappane
Puttalam
Kekirawa
Habarana
Polonnaruwa
Kalkudah
Sigiriya
Dambulla
Chenkaladi
BATTICALOA
Nalanda
Chilaw
Matale
Maha Oya
Kalmunai
KURUNEGALA
Wattegama
KANDY
Polgahawela
Peradeniya
Bibile
Mirigama
Negombo
Veyangoda
Hanguranketa
Henegalgoda
Gampola
Kegalla
Lunugala
Nawalapitiya
COLOMBO
Avisawella
Hatton
BADULLA
Passara
Mt Lavinia
Bandarawela
Horana
Haputale
Panadure
RATNAPURA
Balangoda
Kalutara
Tebuwana
Rakwana
Bentota
Deniyaya
Hikkaduwa
Akuressa
Hambantota
GALLE
Weligama
Matara
Tangalla
Dondra Head

AREAS AND POPULATIONS.

Province.	Capital.	Area.	Population.
Western ..	Colombo ..	1,432 sq. m. ..	925,212
Central ..	Kandy ..	2,299 ,, ..	622,832
Northern ..	Jaffna ..	3,363 ,, ..	342,109
Southern ..	Galle ..	2,146 ,, ..	566,690
Eastern ..	Batticaloa ..	4,036 ,, ..	174,156
North-Western ..	Kurunegala ..	2,996 ,, ..	353,703
Sabaragamuwa ..	Ratnapura ..	1,901 ,, ..	321,262
Uva ..	Badulla ..	3,154 ,, ..	191,925
North-Central ..	Anuradhapura	4,002 ,, ..	79,101
		25,329	3,576,990

POPULATION BY RACES AND RELIGIONS.

Europeans ..	6,300	Christians ..	349,239
Burghers ..	23,482	Buddhists ..	2,141,404
Sinhalese ..	2,330,807	Hindus ..	826,826
Tamils ..	951,740	Mohammedans ..	246,118
Moormen ..	228,034		
Malays ..	11,902		
Veddahs ..	3,971		
Others ..	9,718		

AREAS CULTIVATED AND VALUE OF EXPORTS DURING 1906.

Rice	610,000 acres ..	.. ..	nil
Other grain	120,000 ,, ..	.. ..	nil
Coconuts	750,000 ,, ..	.. Rs.	23,119,600
Other palms	140,000 ,, ..	.. ,,	18,639
Tea	380,000 ,, ..	.. ,,	61,389,765
Rubber	150,000 ,, ..	.. ,,	1,482,000
Cacao	35,000 ,, ..	.. ,,	2,052,400
Cinnamon	45,000 ,, ..	.. ,,	2,642,000
Tobacco	25,000 ,, ..	.. ,,	715,607
Cardamoms	10,000 ,, ..	.. ,,	585,755
Citronella	40,000 ,, ..	.. ,,	1,204,764

Place.	Elevation.	Rainfall and Mean Temperature.												
		Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Spt.	Oct.	Nov.	Dec.	Yr.
Colombo ..	40	3·54	2·08	4·80	11·03	12·04	8·27	4·61	3·67	5·03	14·67	12·38	6·03	88·15
		79·1	80·2	82·0	82·6	82·4	81·0	80·6	80·8	80·8	80·2	79·9	79·1	80·7
Kandy ..	1,654	4·95	2·33	3·41	7·32	6·10	9·24	6·96	5·55	5·81	11·09	10·38	8·87	82·01
		73·3	75·0	77·3	77·6	78·5	75·5	74·8	74·9	74·9	75·2	75·2	73·3	75·5
Nuwara Eliya ..	6,188	5·47	2·10	2·96	6·06	7·66	13·64	11·94	8·26	8·26	10·63	8·78	8·65	94·41
		56·6	57·6	60·8	60·1	60·8	58·1	57·2	57·6	57·9	58·2	57·7	57·2	58·3
Jaffna ..	9	2·15	1·31	0·93	2·35	2·01	0·79	0·87	1·44	2·80	6·66	13·38	11·34	46·03
		78·0	79·6	86·0	85·6	84·9	83·5	82·6	82·4	83·6	81·4	79·1	77·5	82·0
Galle ..	48	4·55	3·02	4·23	10·24	11·47	8·35	5·77	5·45	7·51	13·22	11·48	6·18	91·47
		77·9	79·3	81·1	81·7	81·4	80·4	79·8	80·	80·	79·5	79·	78·2	79·9
Batticaloa ..		8·32	3·88	3·17	1·80	1·81	0·95	1·27	2·15	2·88	6·35	12·40	13·73	58·71
		76·4	77·6	79·7	81·9	82·7	83·0	82·6	82·1	81·5	80·	78·1	76·4	80·3
Anuradhapura ..	295	3·10	1·47	2·69	7·26	3·84	1·43	1·11	1·77	3·06	8·54	10·59	9·34	54·20
		76·2	78·2	81·4	82·5	82·8	79·9	82·3	82·4	82·3	80·1	78·1	76·4	80·2
Badulla ..	2,225	9·68	3·37	4·01	8·04	5·28	2·59	1·46	3·28	3·24	10·07	11·57	13·30	75·89
		69·3	71·0	73·1	74·8	75·4	75·2	74·7	74·8	74·4	73·6	71·9	70·5	73·2
Ratnapura ..	84	5·17	4·60	8·00	12·91	18·72	20·87	12·28	12·37	15·04	18·68	14·34	8·70	151·68
		77·8	79·3	80·4	80·4	80·4	79·4	79·3	79·3	79·	79·	78·	80·3	79·4

RIVERS.

Name.	Mouth Near.	Length.
Mahaweli-ganga ..	Trincomalie ..	206 miles.
Malwattu-oya ..	Mannar ..	104 ,,
Kelani-ganga ..	Colombo ..	90 ,,
Deduru-oya ..	Chilaw ..	87 ,,
Walawe-ganga ..	Hambantota ..	83 ,,
Maha-oya ..	Negombo ..	78 ,,
Kalu-ganga ..	Kalutara ..	70 ,,
Gin-ganga ..	Galle ..	70 ,,

MOUNTAINS.

Pedurutalagala ..	.. ..	8,296 feet.
Kirigalpota ..	.. ..	7,832 ,,
Totapela ..	.. ..	7,746 ,,
Adam's Peak ..	.. ..	7,353 ,,
Great Western ..	.. ..	7,264 ,,
Mahakudagala ..	.. ..	6,901 ,,
Naminakulikanda ..	.. ..	6,680 ,,
Knuckles ..	.. ..	6,115 ,,
Hunasgiriya ..	.. ..	4,955 ,,
Etapola ..	.. ..	4,143 ,,
Alagala ..	.. ..	3,394 ,,

Passenger ashore 25 cents.

Baggage ashore: chairs, handbags, and bundles of rugs, with owner, free

	not with owner	5 cts.
trunks up to 24 × 19 × 18 inches	..	10 ,,
,, up to 33 × 19 × 18 ,,	..	15 ,,
,, over this size ..	..	25 ,,

Baggage from Jetty to a carriage, light packages 4 cents, heavy 10 cents.

Baggage from Jetty to G. O. H., light packages 6 cents, heavy 12 cents.

Rickshaw per half hour 25 cents; after first hour, 10 cents.

Gharri per half hour 50 cents; after first hour 50 cents an hour.

Bedroom boy at hotel, one day, 25 cents; two or three days, 50 cents each. Porters 10 cents.

Railway porter, one box, 5 cents; two or three, 10 cents.

Return fare to Kandy, Rs. 9; to Anuradhapura, Rs. 15·30.

Plantains on platforms, 1—1½ cents each; coconuts 10 cents.

For gharri and rickshaw rates, see towns. There is no need to pay more than these, beyond a reasonable tip of 25 or 50 cents to the driver.

MONEY. £1 gold = 15 rupees. 1 rupee = 100 cents, the coins being 50, 25 and 10 cents in silver, and 5, 1 and ½ cents in copper.

WEIGHTS and MEASURES. As in England, though there are also many native weights and measures in use.

POSTAL RATES. Letters (Ceylon) 5 cents an ounce; (India), 5 cents a half ounce; foreign 6 cents a half ounce. Postcards (Ceylon and India) 2 cents; (foreign) 6 cents.

Printed matter (Ceylon), 5 oz. 2 cents; 10 oz. 5 cents; 1 lb. 10 cents, each extra lb. 10 cents; (foreign) 2 oz. 3 cents and each additional 2 oz. 2 cents.

Parcels (Ceylon) 4 oz. 5 cents; 8 oz. 10 cents; 1 lb. 15 cents; each extra lb. 15 cents; (foreign) see Post Office Guide.

Telegrams, ordinary, 25 cents for 8 words, and 5 cents a word beyond; urgent, 75 cents and 10 cents.

HOW TO SPEND THE TIME AVAILABLE IN CEYLON TO THE BEST ADVANTAGE.

A good deal will depend upon the visitor's tastes. If he is mainly interested in archæology, buildings, &c., he should visit Galle, Kandy, Lankatilake, Gadaladeniya, Aluwihare, &c., Dambulla, Sigiriya, Polonnaruwa, Kalawewa, Anuradhapura, Mihintale, and the Colombo Museum. But if he be, as most visitors are, simply anxious to see the island generally, then he should leave Colombo till his return, and visit Kandy, Peradeniya, Hatton (for Adam's Peak), Nuwara Eliya, Bandarawela, Badulla, Anuradhapura, Galle, Matara, Kalutara, and Colombo.

A few suggested tours are here given:

	One Week.	*General.*	*Archæological.*
1		Kandy by 7-30 train and Peradeniya.	Colombo Museum.
2		Nuwara Eliya.	Gadaladeniya, Lankatilake, &c.
3		Hakgala &c.	Aluwihare, Kandy temples, &c.
4		to Anuradhapura.	Anuradhapura.
5		Anuradhapura.	Anuradhapura & Mihintale.
6		to Colombo, or Henaratgoda and Colombo.	to Galle.
7		Colombo & Mt. Lavinia.	Matara and Colombo.
	Two Weeks.		
1		Colombo.	Colombo Museum, &c.
2		Kandy.	Kandy.
3		Peradeniya &c.	Lankatilake, &c.
4		Hatton and Maskeliya.	Matale & Aluwihare.
5		Adam's Peak & Hatton.	Motor to Dambulla and Sigiriya.
6		Bandarawela.	Motor to Polonnaruwa, and back to Habarane.
7		Nuwara Eliya, Hakgala.	Motor to Kalawewa, and back to Kekirawa or Anuradhapura.
8		Nuwara Eliya.	Anuradhapura.
9		to Anuradhapura.	Anuradhapura.
10		Anuradhapura and Mihintale.	Mihintale and by night mail to Hatton.
11		to Colombo by later train	Adam's Peak.
12		Galle and Matara.	Nuwara Eliya.
13		Colombo and Negombo.	Nuwara Eliya, Hakgala, &c.
14		Colombo & Mt. Lavinia.	To Colombo

PART I.—PHYSICAL FEATURES.

Chapter I.

GEOLOGY AND GEOGRAPHY.

CEYLON, as is partly indicated by the nature of the rocks of which it is mainly composed, is a very ancient island, and has probably been land for a vast period of time. At the same time, it has by no means always had its present shape or size, but probably was for a long time at the outer end of a long projecting peninsula stretching from Africa eastwards. In those days, geologically described as towards the end of the secondary period, and in actual fact some time before the chalk hills of southern England were constructed at the bottom of the sea, it is generally supposed that South America and Africa formed one continent called Brazilia-ethiopica, which had an eastward projection towards India and Malaya. Continuous or almost continuous sea ran round the world at the equator, and the tides must in consequence have been of extraordinary violence. By the agency of subsidence and the wash of the tides the land connection from Ceylon to Africa was broken into a series of islands, and finally destroyed, the present reefs of the Maldives, Chagos, &c. perhaps having formed on some of the highest land, which was last to disappear.

It is this former land connection which explains why in Ceylon, and South India, there are many animals and plants whose nearest relatives at the present time are in Mauritius, Madagascar, &c.

ROCKS. All the rocks of Ceylon, excepting a small area in the extreme north, and a narrow belt round the coast, where recent coral and sandstone deposits occur, are of igneous origin, that is to say, have consolidated from a molten condition in past ages. On cooling, the various minerals have more or less separated in bands, which often give the impression that the rocks have been laid down under water and thus become stratified. Such rocks may be called gneisses; they are much too old to contain fossils, and belong to the very early periods of the earth's history. They closely

resemble the rocks of South India, and like those may be said to belong to the Charnockite series. The typical Charnockite rock is very dark, hard, and compact, and consists mainly of the minerals felspar, quartz, and pyroxene. Other common minerals are mica, hornblende, and iron ores. Some of the bands consist almost entirely of mica and pyroxene, and are dark in colour, others are almost pure quartz, and are quite white. Such quartz bands should be distinguished from veins or reefs of quartz.

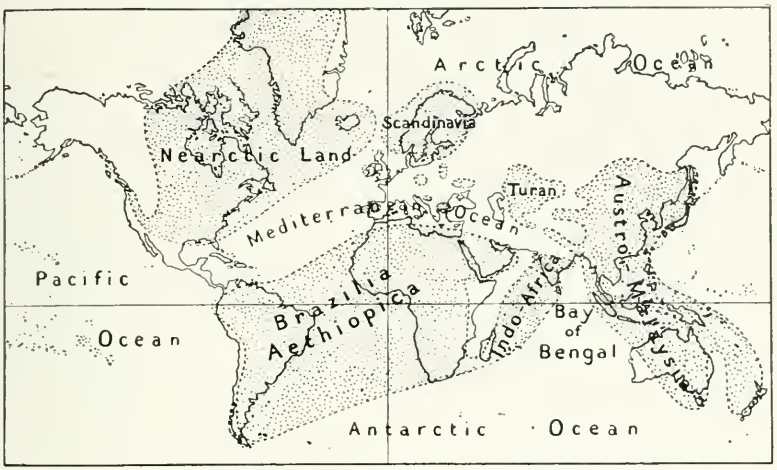
Bands of crystalline limestone occur with the gneiss, and with the included minerals form beautiful specimens. The finer grained varieties may be called marble. Veins of mica are very commonly found near the limestone, though seldom in it.

Another important class of rocks in Ceylon, also of igneous origin, is the pegmatites, consisting of veins intruded into the gneiss after it had consolidated, and composed usually of felspar and quartz, while large crystals of hornblende and mica are common. Some of these pegmatites appear as regular granites like those of Dartmoor, as at Balangoda. These rocks are probably the source of the gems for which Ceylon is famous, and of minerals containing thoria, while graphite is also found in association with them.

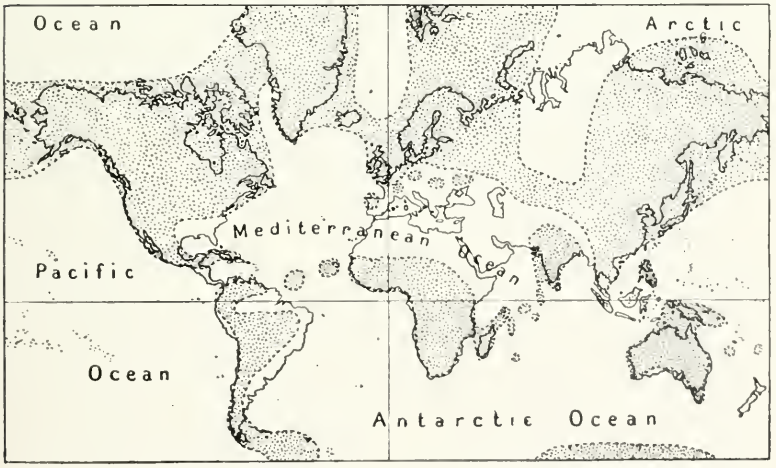
Both gneisses and pegmatites decompose very readily on the surface under the influence of the weather, and from their felspar is formed kaolin or china clay. This decomposition may be well seen at Nuwara Eliya. Another mode of alteration results, especially in the low-country, in the formation of laterite or kabuk, a reddish rock rich in iron, and containing roundish white concretions. It is soft when dug, but soon hardens and is used as bricks for building. It may later prove useful as a source of aluminium.

MINERALS. The most important mineral mined in Ceylon is graphite, otherwise known as plumbago or black-lead. 23,943 tons were exported in 1903, of a value of about Rs. 500 a ton. The mines are of a somewhat primitive nature (Plate II), and are chiefly to be found in the west and south of the island. The mineral is roughly cleaned at the pit's head, packed in barrels, and finally cleaned, or cured, as it is called, in Galle or Colombo. Graphite is used for the manufacture of crucibles, as well as for lead pencils and as black-lead.

Mica occurs fairly commonly, and good uncracked sheets are of considerable value, mainly for use as insulators in dynamos and motors. Pits for mining it are sunk in the veins where it occurs, mainly as above stated in the neighbourhood of the crystalline limestone.



Probable distribution of land at the end of the Jurassic Period.



Probable distribution of land at the end of the Eocene Period (much later.)

(See page 1.)

[*From the Royal Geographical Society's Journal, by kind permission of the Society and of J. S. Gardiner Esq.*]

Asbestos is found in the island, but is not mined commercially. Apatite occurs in lovely blue crystals near Hakgala, and elsewhere.

Ceylon is not rich in metallic minerals. Gold has been found in the gravels and clays underlying the soil in valleys and paddy fields, and in the beds of rivers, but never in paying quantity. Sir Samuel Baker was perhaps the only man who ever approached success, in gold mining near Nuwara Eliya, by the aid of Australian miners. The last boom in gold mining was started during the residence of the Boer prisoners, but came to nothing.

Traces of platinum have been found in the alluvial deposits. Molybdenite, which is used for hardening steel, has also been found, and cassiterite or tinstone occurs in small quantities. Iron ore is abundant in places. It was formerly smelted by the Sinhalese, and the art is not yet quite extinct, *e.g.* in the Balangoda district. The ore is of excellent quality, and good steel has been made from it, resembling the old Sheffield tool steel. Tools made of such steel are highly valued, but the imported steel is now so cheap that local manufacture does not pay.

GEMS or Precious Stones. The island has been famous for gems from very early times. They are mostly found in the alluvial plains to the south-west of the Adam's Peak range of mountains.

A gem may be defined as a mineral which for beauty of colour, transparency, or lustre, may be cut as an ornament, and it is also essential that it should possess sufficient hardness to be durable. Rarity is a further quality that enhances the price, and such beautiful gems as the moonstone suffer considerably in general estimation because they are common.

Pits are sunk to a depth of 2 to 100 feet into a lower layer of gravel in which the gems are mostly found, and the lighter sand and small particles of earth and gravel are washed away in baskets in the stream, and the gems carefully sought for in the residue. The work is done mainly by the Sinhalese, to whom its gambling nature strongly appeals, and in the drier weather of the year from December to March.

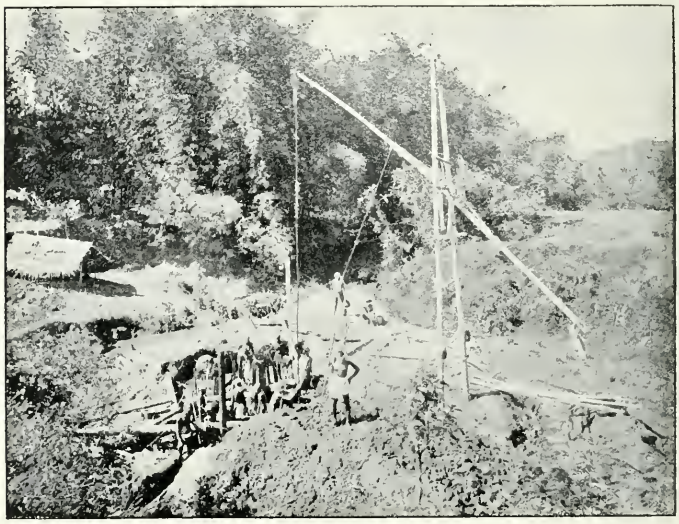
What may be called the "gem minerals" of Ceylon are:

(1) **Corundum.** When opaque, it is only used, on account of its great hardness, for abrasion. Transparent gem corundum occurs in a variety of colours. When colourless it is known as the *white sapphire*, a stone possessing great brilliance, and used instead of diamonds as a setting for other gems.

When red and transparent, corundum is known as *ruby*, and this is the most valuable of the Ceylon gems, especially if

of a pure crimson or "pigeon's blood" colour. Most Ceylon stones have a tint of blue, and must first of all be burnt to get rid of this.

When blue, corundum forms the *blue sapphire*, one of the most beautiful of Ceylon gems, and produced here best in the world. *Velvet* or *purple sapphires* are known as *oriental amethysts*, and good specimens are of considerable value. The *oriental emerald* or *green sapphire* also occurs here, but is rare. The *yellow* or *orange sapphires*, sometimes known as *oriental topaz*, are also beautiful stones, and may be obtained at a moderate price. The so-called *king topaz* of the jewellers is not true topaz, but a cross between the yellow sapphire and the ruby, and has a fine orange red tint.



A MOONSTONE PIT.

The ruby and the sapphire have often a milkiness or "silk;" when cut in a rounded or "cabochon" form they show a star, and are known as *star rubies* or *sapphires*, forming beautiful and interesting stones, only to be found in Ceylon.

In the travels of Marco Polo, about 1292 A. D., occurs the following description of the great ruby of the king of Ceylon: "the king is said to have the very finest ruby that was ever seen, as long as one's hand, and as big as a man's arm, without spot, shining like a fire, not to be bought for money. Cublai-Khan sent and offered the value of a city for it; but the king

answered he would not give it for the treasure of the world, nor part with it, because it had been his ancestors.'"

(2) **Zircon.** When transparent and of fine colour this is commonly cut as a gem, and usually forms the greater part of a parcel of "Ceylon fancy stones." Such stones are indiscriminately classed with tourmalines by the Sinhalese under the name "toramalli." The *tourmaline* when cut as a gem usually has a dull green colour, which changes its tint according to the direction in which the light passes through it. Zircons occur of a fine leaf-green colour—the most valuable—and yellow or orange, or red, when they are known as *jacinth* or *hyacinth*, the *jargoon* of the jewellers.

The so-called *Matara diamond*, which is set in cheap and pretty forms of native jewellery, is colourless zircon, obtained by burning pale and poorly coloured stones.

(3) **Garnet.** These stones are good and cheap in Ceylon. Many of the rocks along the rivers about Kandy and elsewhere sparkle in the sun from the innumerable garnets contained in them, but these cannot be obtained in good condition. The red garnet when cut "en cabochon" is known as *carbuncle*. A brown garnet is known as *cinnamon stone*. A magnificent flame red stone, a garnet containing manganese, is sometimes seen, and commands a high price.

(4) **Topaz.** This is either white or pale-green. The white stone is cheap, being practically only worth the cost of cutting. The pale-green one is sold as *aquamarine*, which is however, properly the beryl.

(5) **Beryl.** Large pale-green specimens are common, and are known as *aquamarine*. Dark-green beryl is the *emerald*, very rare in Ceylon.

(6) **Chrysoberyl.** This is a pale-green or yellow stone, with a fine lustre, but shows poorly by artificial light. A valuable and interesting variety is the *alexandrite*, which is a dark-green by daylight, and crimson by artificial light. When the chrysoberyl is very silky in appearance, it is cut "en cabochon" as the *catseye*, a stone showing a sharp line or ray of light along the middle. The cat's eye is almost peculiar to Ceylon and is most prized when of a fine green colour with a sharp ray.

(7) **Spinel.** Transparent varieties are cut as gems; they are cheap stones and have but a poor lustre. The mineral occurs in red, blue, violet, and green. Fine red or blue specimens are liable to be mistaken for rubies or sapphires.

(8) **Quartz.** Colourless transparent quartz is known as rock crystal; when yellowish brown in colour it is cut as a gem, which may be known by the Scotch term *cairngorm*. If violet it is known as *amethyst*.

(9) **Felspar.** Some of the Ceylon orthoclase felspar, especially in the Kandy district, is semi-transparent, and shows a peculiar sheen, sometimes blue (the more valuable), sometimes white, and is cut as *moonstone*. This is a very beautiful gem, and it is to be regretted that its comparative cheapness causes it to be undervalued.

(10) **Cordierite.** This mineral is sometimes cut as a gem, being known as *water sapphire*, a name often incorrectly given by the jewellers to the white topaz. It is rarely met with.

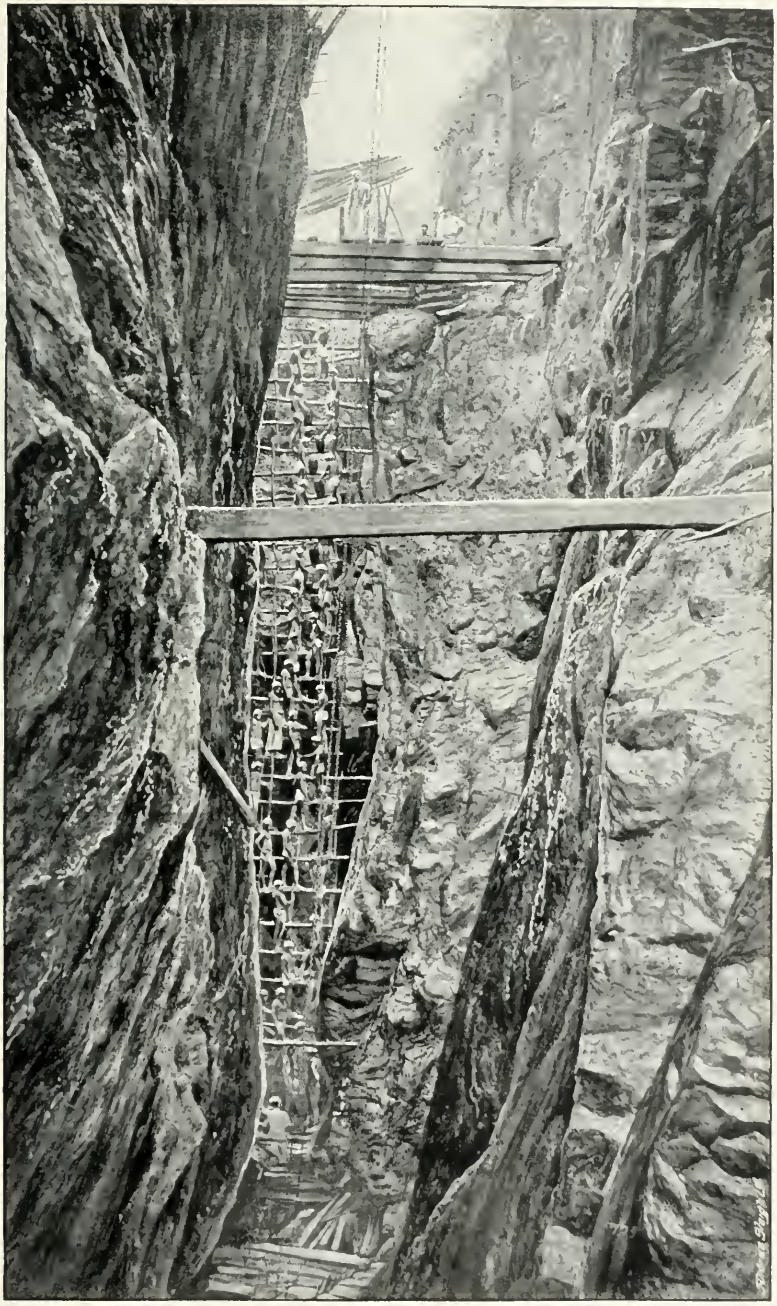
(11) **Andalusite.** This is a somewhat rare and curious stone; when cut in an oblong shape it shows a pale-green colour with red patches in the four corners.

Gems are cut in Ceylon on lead wheels or laps, as a rule, with powdered corundum, but moonstones are cut with wooden laps and powdered garnet. When the right shape has been given to the stone, it is polished on a copper lap, by the aid of the ash of paddy straw. It is worth paying a visit to the lapidaries' quarter in the Pettah in Colombo.

The jewellery trade is mainly in the hands of the Moormen or Mohammedans, who have numerous shops in the hotel verandahs and elsewhere in the larger towns. The visitor must always remember in dealing with these folk that the price they first ask is from two to ten times what they will ultimately take. He should not show himself too eager to buy, and when he has made what he considers a fair offer, he should even go away, when he will quite likely be followed with an offer of the stone at his own price. In general there are few bargains in jewellery to be picked up in Ceylon, many of the men here having of course their agents in London and elsewhere.

A LAPIDARY.

The weak point in Ceylon-made jewellery is the setting, which in imitations of European goods, in which the most of the trade is done, is usually poor, and frequently the cutting of the stones, for the native lapidary usually cuts so as to leave the maximum of weight, and very often the stone can be much improved by further cutting. For use in rings &c.,



A PLUMBAGO MINE. *(See page 2.)*

[*Photo by A. K. Coomaraswamy.*]

it is commonly best to buy the stones here, and get them set in Europe, but Ceylon has many peculiar patterns of jewellery, some of which are very artistic, and which cannot be got elsewhere. Such are the bangles of mixed Ceylon stones, which can be bought for Rs. 50 to 100, necklaces of the same, the bangles of Kandyan work, and so on.

The most valuable stone of Ceylon is the ruby, but the price depends on the colour; a bluish tinge detracts greatly from the value. A good pigeon's blood coloured ruby about $\frac{3}{8}$ to $\frac{1}{4}$ inch in diameter is worth about Rs. 300 to 500. The next most valuable stone is the blue sapphire, and one of fine colour is worth almost as much as a ruby. There are also pink sapphires, worth Rs. 10 to 15 and white sapphires, worth even less. Topazes of fine colour are worth about Rs. 6 upwards, garnets Rs. 3 to 5, catseyes Rs. 5 upwards, amethysts, cinnamon stones or tourmalines Rs. 1 upwards. A good blue moonstone, about $\frac{1}{3}$ to $\frac{1}{2}$ an inch long, is worth about Rs. 1 upwards, while a white one is worth from 25 cents upwards.

THORIA-BEARING MINERALS. Reference should be made to certain valuable minerals of this class which have lately been discovered in Ceylon. Thoria is the main constituent of the mantles of the familiar incandescent gas lamps, and hitherto has only been obtainable from monazite, found in Brazil and Carolina, a mineral containing from 3 to 5 per cent. of it.

In 1903 a new thoria bearing mineral was discovered in Ceylon, which contains over 75 per cent. of thoria. It is called thorianite, and is obtained by washing gem gravels. It has sold for as much as £80 per cwt. in London. Another mineral containing thoria is thorite.

GEOGRAPHY. The Hindus made the meridian of Lanka —the native name of the island— pass over Ceylon, but they made the country much too large, and their descriptions partake of the nature of fables. The small size of the present island some of them explain by legends of submergence, which also are found in Ceylon, and which, as indicated above, may have a foundation of truth.

The Greek geographers are vague, but Ptolemy gives a comparatively accurate account of the island, which he would appear to have derived from the narratives of traders and others in Alexandria, where he lived. His account served for centuries as the source from which other Greek writers drew their information about the country. The next author to give a good account was Cosmas, in the reign of Justinian, who from the great extent of his travels received the surname or patronymic of Indicopleustes. At this time a considerable

trade with the east, conducted through Ceylon, was springing up, but with the rise of the Mahommedan power, all the old trade, and the routes by which it was conducted, was altered, and the new direction of commerce was through Bassora and the Persian Gulf. Ceylon, however, remained the great mid-eastern port of interchange. The writers who deal with the island for the next many centuries are consequently mainly Arabian and Persian [*cf.* the adventures of Sindbad the Sailor, who visited Ceylon.]

Galle would appear to have been the centre of the great and lucrative trade that went on between the east and the west, and has been identified by many writers with the Tarshish of the Bible—and there is evidence in support of this view. It lies at the extreme south of the island, and in these early days the population and agriculture was probably mainly in the north. Curious confirmatory evidence of this is to be found in the statement of nearly all the earlier writers that the natives when they wished for an exchange of produce, brought the article to be exchanged to a convenient spot, with a description of what they wished in return for it, but were not themselves to be seen. This is to this day the custom of the Veddas or aborigines of Ceylon.

The Chinese also give descriptions of Ceylon and that not inaccurately. In 1408 in revenge for insults to their envoys the Chinese sent an expedition and carried the king captive from Ceylon to China, to which country the island was subject for a good many years.

After this there is but little to relate till modern times, which have given us the survey of the island. It is just 270 miles long, and 140 miles in breadth at the widest part, while the area is 25,481 square miles, or about five sixths the size of Ireland.

The greater part of the island is flat or gently undulating, but about 4,000 square miles in the South-west, lying at a distance of 25 to 50 miles from the sea on the South-west coast, consists of a mountain region rising fairly abruptly from the plains to a height of two to five thousand feet and undulating above that to a maximum height of 8,296 feet in Pidurutalagala, while Adam's Peak, which is by far the most conspicuous mountain in the island, on account of its somewhat isolated position and sharply conical top, is 7,353 feet high.

The mountain region of Ceylon consists of a series of ridges having a general direction from southeast to northwest. The rocks were thrown into folds having this direction, and subsequently carved out by water and atmospheric action. The ridge form thus produced may be well seen on looking from Lady Horton's Walk at Kandy.

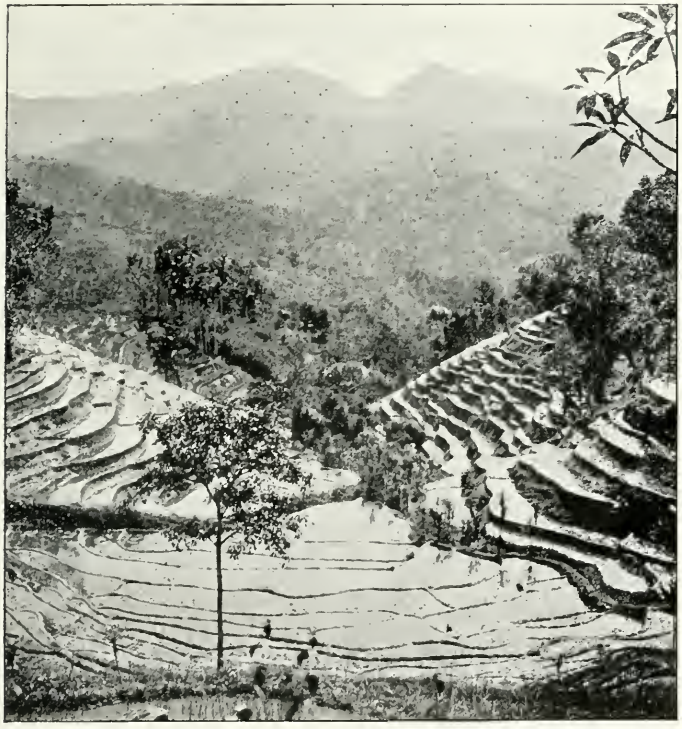
VIEW ON THE KELANI RIVER.

CROSSING A RIVER IN CEYLON.

(See page 9.)

To the west the ascent to the hill country is very precipitous and the only practicable passes for roads are the Kadugannawa pass, by which the railway runs to Kandy, and the Kitulgala pass, leading up to Nawalapitiya.

The rivers are mostly only of a moderate size, and very rapid, and in consequence not easily navigable, at any rate up-stream. The chief is the Mahaweli-ganga (great sandy river,) which drains the bulk of the hill country, and after



VIEW IN THE MOUNTAINS NEAR KANDY.

a course of 206 miles enters the sea near Trincomalee. Others of importance are the Kelani-ganga, 90 miles long, entering the sea at Colombo, and crossed on the Kandy railway a few miles from Colombo, the Deduru-Oya, the Walawe-ganga, the Maha-Oya (passed near Mawwa on the Kandy railway), the Kalu-ganga, the Malwatte-Oya, and the Gin-ganga.

Lakes, other than artificial ones—which are both large and numerous—do not occur in Ceylon, but lagoons, such

as the Colombo Lake, are common all round the coast, being apparently due to the throwing up of sand barriers to the rivers by the action of the sea.

Canals were made by the Dutch between many of these lagoons and rivers along the coast, *e.g.* the canal by which the steamers run from Colombo to Negombo.

The chief towns are Colombo with a population of about 165,000, Jaffna 48,000, Galle 39,000, Moratuwa 30,000, Kandy 28,000, Trincomalee 12,000 and Nuwara Eliya 5,000.

The island has 563 miles of railway of which 68 are on the narrow gauge of 2½ feet, the remainder being on the broad gauge of 5 feet 6 inches. This is the standard gauge

THE RAILWAY TO KANDY.

of India, at least of Northern India, and the Ceylon railways were made of the same gauge in view of a possible ultimate connection across the sea at Mannar. Unfortunately the most of the railways in South India, including that which runs down to a point opposite Mannar, have since been made upon a gauge of one metre, so that in any case should the junction be made across the strait, there must be break of gauge. The island also has about 4,000 miles of road partly metalled

COLOMBO LAKE AND ST. JOSEPH'S COLLEGE.

VIEW ON THE NEGOMBO CANAL.

(See page 10.)

and partly gravel; the metalled roads are in general of first-class quality and a motor-car can travel almost throughout the island by their means.

The area cultivated in Ceylon is only 3,650,000 acres, while the area possible of cultivation is at least four times that amount. The cultivated area lies in the West, South and Centre of the island and also in the extreme North, while the rest of the island is mainly covered with forest. The chief areas under cultivation are rice 600,000 acres, coconuts 750,000 acres and tea 380,000.

Chapter II.

THE CLIMATE.

THE climate of Ceylon varies very much in the different parts of the island, but in any one part, except to some slight extent in the dry country to the north and east, it is very similar all the year round, and we do not get seasons in the sense in which that word is used in the temperate zones, although we do get fairly well marked seasons in the sense of a difference between wet and dry, for twice a year, with the onset of the monsoons, there is fairly wet weather, passing into drier as they go by. At no time of year in southern Ceylon is there any long dry season, such as there is further north, in India for instance; but the months of January, February, and to some extent March, are fairly dry, the showers in them being but few and far between, and the air being drier.

The marked features of the climate in southern Ceylon are the great constancy of the temperature—whether the whole year be compared, or only one day—the small daily range of the temperature, the dampness of the air, and the changes of the monsoons in April and October.

In Colombo, for example, the highest temperature ever recorded was only 95·8, while the lowest ever recorded was 65·0. In Kandy the highest and lowest records are 96·2 and 49·5. This is at an elevation of 1,600 feet, and the greater range is to be accounted for by the fact that the air gets drier, being further from the immediate influence of the sea. At Nuwara Eliya the range is from 81·8 to 28·2; and the still greater range here is mainly explained by the fact that the place lies upon an open plain, where radiation can go on very freely. At Hakgala, close by and a few hundred feet lower down, but upon a steep slope, the range is only from 79·0 to 37·3.

The average ranges of temperature are of course smaller than these, which represent the extremes over long periods of years. The drier the air may be, the greater is the range of the temperature; thus in Nuwara Eliya, in the dry month of February, when the dampness of the air is only from 50 to 60 per cent. of saturation during the day, the range of

temperature is from 45 to 70; while in the damp month of June (dampness from 80 to 90%) the temperature merely ranges between 55° and 65°.

The air in Ceylon, and in almost all parts of it, is always very damp, the degree of moisture in it on the average ranging from 75 to 85 per cent. of the total amount that could be held in it. This is a high percentage, and taken together with the warm temperature, encourages the growth of every kind of mould on every kind of substance, so that boots or anything else left out of sight for a day or two are very commonly to be found after that time covered with a white fungus growth.

FLOODS IN COLOMBO IN THE S.W. MONSOON.

In January there is a fair breeze blowing from the north or northeast, the N. E. Monsoon in fact, and this blows with gradually decreasing force until some time about the beginning of April, when the wind becomes more or less variable, the sun being then directly overhead. Presently it sets in fairly steadily from the southwest, as the sun goes northward, and the S. W. Monsoon is said to have begun. The first onset of the monsoon is very gentle, and usually goes in Ceylon by the name of the "little" monsoon; about six weeks later it begins to blow and rain much more strongly, the change often coming on rather suddenly, and being ushered in by thunderstorms, and the "big" monsoon is said to

have "broken." The southwest wind continues until about September, when it becomes variable again, and then in October, to the accompaniment of many thunderstorms, the wind once more changes, when the sun has gone overhead again to the southward, to the northeasterly direction, and the N.E. Monsoon is said to have broken.

The wind on the whole is stronger during the southwest monsoon, but at sea level in Ceylon it is nowhere of any serious violence, and never approaches the strength of the wind in a gale in England. Ceylon lies too near to the equator to be within the zone of cyclones, though when one occurs unusually far south in the Bay of Bengal, there is sometimes a gale of wind in the north or east of the island, and in 1907 a cyclone actually touched the coast near Batticaloa, and did considerable damage. At higher levels in the mountains, of course, the wind may be much stronger, and at places like Hakgala may reach a velocity of 60 miles an hour. This is easily to be understood, for the wind is so to speak condensed, all the wind from all the levels having to get over the top.

The island may be very sharply marked out into climatic zones, for it is not flat—in which case the climate would be much alike all over—but has a high range of mountains crossing the line of the monsoons more or less at right angles. The damp wind coming from the sea is thus forced upwards and cooled, and in consequence parts with a good deal of its moisture in the form of rain or mist. As it passes down the other side of the hills the air gets warmed again, and as it now contains less moisture than before it struck the hills, it becomes a more or less dry wind. Thus it is that in the southwest monsoon there is heavy rain on the western side of the hills, but not on the eastern, where there is a dry wind, while in the northeast monsoon, especially in the latter part of it, the reverse is the case.

It thus comes about that we can divide Ceylon into zones, which are roughly the wet low-country, the dry low-country, the wetter western up-country or hill-country, and the drier eastern up-country. We may also, if we wish, divide the cooler high levels of the hills from the warmer low levels below 4,000 feet.

The wet low-country comprises the country up to the foot of the hills, from Colombo to Matara which lies at the extreme southern point of the island. Here, owing to the nearness of the hills, there is a good deal of rain at practically all times but in the first three months of the year, and even then there are showers at intervals of a couple of weeks or so. The general character of the climate may be sampled in

COLOMBO BREAKWATER DURING S.W. MONSOON.

[*Photo : Colombo Apothecaries Co., Ltd.*]

Colombo, though it is rather hotter and more steamy there than in the more inland stations, such as Avisawela or Ratnapura, owing to the greater open paved spaces in the town, which always get hot, and the nearness of the sea, which keeps the air damper.

In Colombo, January is one of the coolest months of the year, there being usually a considerable breeze from the north. The newcomer will probably like this wind, but the old resident dreads the "long-shore" wind as he calls it, which gives rise to rheumatic and other complaints, like the east winds in England. In February and March the wind dies away, and with the continual sunshine of the dry season, the weather gets hotter and hotter, and all who can afford the time and money go away to the hills. In April the little monsoon begins, and affords a temporary relief, but it becomes cloudy, so that now, though the days are a trifle cooler, the nights are hotter, and April and May are perhaps the most unpleasant months of the year. In the end of May the big monsoon comes on, and from that time till the end of August or September the weather in Colombo is very pleasant for a tropical town, there being a continual breeze from the sea, and the weather being much cooler and more equable. September, being dry, is generally warmer again, but soon the northeast monsoon comes on, and there is pleasant showery weather till Christmas, about which time the long-shore wind begins again.

In the dry low-country, which occupies all the north and the country below the mountains on the east, the bulk of the rain is in the northeast monsoon from September to January, though there is often a good deal in the early part of the southwest monsoon in April, in the more southern parts between Anuradhapura and Kurunegala. During the rest of the year there is but little rain, especially from May to September, and it gets steadily warmer from February onwards, though the strong breeze from the southwest moderates the heat after April.

On the western side of the mountains, the heaviest rain falls during the southwest monsoon, though there is usually a good deal during the first three months of the northeast, so that except in January and February there is rain almost all the time. The general characters of the months are thus very like those of the Colombo climate, but cooler and cooler the higher one goes. Whereas, on the eastern side, the rainiest weather is in the northeast monsoon, and the drier season is from June to September, a rather longer dry season than that on the western side, so that there is more dry and open country. The flowering seasons of a great many plants

are six months or so different on the eastern side from those on the western, just as if one had passed into the southern hemisphere; thus Para rubber ripens near Colombo in July, at Badulla in February.

It might be imagined that the wet country of the west would pass very gradually into the dry country of the east during the S. W. Monsoon, but this is by no means the case. Driving from Nuwara Eliya over the watershed to the east, *e.g.* a few miles below Hakgala gardens, one comes almost suddenly out into blue sky and sunshine, leaving the gloomy atmosphere and the rain behind. This is sometimes to be seen in the most striking way at the tunnel between Pattipola and Ohiya stations. On the one side it may be wet and dismal, on the other fine and sunny.

BULLOCK CARTS.

(See page 18.)

Chapter III.

ZOOLOGY.

THE zoology of Ceylon is of considerable interest, but as the animals are in general less accessible than the plants of the island, we need say less about it. To a large extent Ceylon is a smaller edition of India, but there are also a number of animals whose nearest relatives are African or Malayan, whose presence here is to be attributed to the former land connection (p. 1).

The centre, west and south of Ceylon are so much cultivated and civilised that we find in them few other animals than nocturnals, or pariah-dogs, flying-foxes, jackals, snakes, rats, mice, and other animals that accompany man. In the up-country districts, especially about Nuwara Eliya, one still finds the leopard, the elephant, the deer, the pig and other wild animals in the forests that there remain untouched, while in the extensive forests in the low-country of the north and east, and especially in the two game preserves which have been created in the southeast and northwest, there are still a considerable number of wild animals of many kinds.

We shall deal with the commoner animals in order, arranging them partly by their natural affinities, and partly in alphabetical order; but it must be made quite clear that Ceylon is really very rich in animal life, and that these are only the "obvious" animals—(and see chapter on sport, below).

MAMMALS (those giving suck to their young).

Bats. There are many kinds of small bats to be seen flying about at dusk, but the kind which is of special interest is what is usually known as the flying-fox, a very large bat which may measure as much as three feet across the wings. They hang in lofty trees during the day, in great numbers (a colony is often to be seen in the gardens at Peradeniya), and fly away at dusk to get their food, which consists almost entirely of fruit, the various wild figs being special favourites.

Bear. The Ceylon bear is rather small and black. It lives largely upon honey, and is common in stony places in the northern jungles. It is a somewhat dangerous animal to meet, as when suddenly disturbed it does not run away, but stands upon its hind legs and claws the assailant.

Buffalo. The wild animal is only to be seen in out of the way jungles or grassy spots in the dry country, particularly in the southeast, where it affords very good sport, but the tame buffalo is used in every paddy field in the island for ploughing, and may be met on every road. It is not a safe animal for the white man to interfere with, though a small native child can readily handle it. When not employed, the buffalo usually lies in water, with only its head appearing above the surface.

Bullocks. These are universally used in Ceylon for all draught work. The native bull is small, the "coast" or Indian

ELEPHANT AND YOUNG.

bull larger and usually more or less white. Both are of the "yak" type with a large hump, in front of which the beam by which they draw is placed. They are very commonly branded in various ways. Sometimes the marks are caste or ownership marks, and sometimes they are put on, as directed by native doctors, for the cure of ailments.

Deer. Ceylon contains five species of deer. The axis deer is very common in the dry country, running in large herds. The sambur, or elk, as it is locally miscalled, is found in the up-country districts, where it is hunted with packs of dogs, the huntsmen going upon foot. After a run, often of considerable length, across country, the deer usually

ELEPHANTS BATHING.

(See page 19.)

comes to bay in a pool upon a river, and is killed with the hunting knife. The mouse-deer, a tiny deer about 18 inches high, is very common up-country, and is so small that it can get under or through most fences.

Elephant. This animal is very common in Ceylon, whence many of those in use elsewhere are procured. The Ceylon elephant is smaller than the African, and is rarely provided with large tusks. It roams about in herds, which cover a considerable area of country in their wanderings. It is strictly preserved, and can only be shot by the holder of a license.

Every few years an "elephant kraal" is held in some part of Ceylon, usually by one of the Kandyan chiefs. A large stockade is erected in a central place, and the elephants are driven into this by thousands of beaters who beat the jungle in a steadily decreasing area for weeks. Finally the elephants are driven into the kraal, where they are then captured by tame elephants and tied up until they become tame enough for removal and training.

The elephant is a remarkably clever animal, and it is wonderful to see it obeying the word of command given by its mahout or driver. It may frequently be seen in Ceylon uprooting trees, piling timber, carrying stones, or drawing heavy machinery to up-country factories. A favourite place for the visitor to see elephants is in the river at Katugastota, near Kandy, where some elephants kept by a Kandyan chief may be seen bathing almost every afternoon.

Jackal. This is very common in all parts, and looks not unlike a rather hairy pariah-dog. It hunts at night, with a sustained howling and barking.

Leopard. The leopard, often miscalled here the cheetah, is still very common in the up-country jungles, but does not attack man unless driven to bay. It is frequently caught in dead-fall traps, which are baited with live goats.

Monkey. Ceylon contains five kinds of monkey, the most common of which is perhaps the large wanderoo, often to be seen among the coconut or other palms on the beach, leaping from tree to tree with wonderful agility. The rillow or macaque is very common at Anuradhapura, *e.g.* in the enclosure round the sacred bo-tree, where the monkeys are so tame that they will often sit and look at the visitors, "striking matches on the legs of their trousers." The young are carried by the mothers beneath their own bodies.

Mongoose. This animal is not often seen wild, being mainly nocturnal, but every snake-charmer carries one about with him, and for a consideration will allow it to fight with the cobra he also carries. The animal is not unlike a large

squirrel, and is wonderfully active, leaping about with such rapidity that the snake can but rarely strike it.

Otter. This is found in a good many streams in Ceylon, and is hunted with otterhounds in some of the planting districts.

Pariah-dog. This animal, which is very abundant in every village in Ceylon, is not a real native of the island, but was long ago introduced. It is usually a thin, mangy, half-starved disreputable beast, slinking away almost at a look, and barking at every passer-by, but if well fed and cared for from a puppy, it is quite a handsome animal, and is said to be a good hunting dog.

SNAKE CHARMER AND COBRA.

Porcupine. This is a very common and troublesome animal in the planting districts, being a great uprooter and devourer of garden and field plants, while owing to its covering it is protected against dogs, which, should they unwisely attack it, are liable to be severely injured by the long quills. There is quite a small industry locally in making workboxes &c., from these quills.

Squirrel. This is perhaps the commonest animal in Ceylon. It is not quite so large as the English squirrel, but is prettily marked with three black stripes along its back. The current legend about these is that the devil in trying to catch the animal, missed, but burnt three lines upon it with his fingers. There is a larger and very handsome rock-squirrel in the up-country jungles.

Rats and Mice. These are common in all inhabited parts of Ceylon, but need no further mention. An enormous rat, the bandicoot, sometimes does damage to plants.

BIRDS.

These are fairly numerous in the island, but there are comparatively few of gorgeous colouring, and people often complain of the absence of bird life. The clearing of the timber in the planting districts of course drove away most of the birds there, but with the large planting of shade trees that has gone on in recent years many have returned.

Some of the commoner or more important birds are described below:

Coppersmith or Barbet. This is very common up to moderate elevations, in several species, and is a small green bird, with a crest. It has several notes, but that to which it owes its name is a continuous "tonk, tonk, tonk."

Flamingo. These visit Ceylon in large numbers during the N.E. Monsoon, and wade in the salt lagoons about Hambantota, and elsewhere.

Golden Oriole or Mango Bird. This is a bird about the size of a blackbird, with a fine yellow and black plumage, and may be seen about Kandy and elsewhere.

Jungle Fowl. This is a very common bird, and affords good sport, being very shy and quick on the wing. It is very common in the up-country jungles when the nelus (see below, under Botany) are in fruit.

Lark. Very common on the patanas at high levels.

Magpie Robin. A small black and white bird, not unlike the English magpie, very common about houses, and with the same habit of stealing brightly coloured articles. A very saucy bird.

Night-jar. Very common, and may be heard "singing" in the dusk. The notes are like the throwing of stones over thin ice "tap———tap——tap—tap-tap, trrrrrrrrr."

Paradise Flycatcher. This bird is not infrequent about Kandy and Peradeniya in the N. E. Monsoon. It has a brown body when young, grey when older, with two very long white feathers in its tail, which give it a very curious look when flying.

Parrot. A small green parrot or parroquet, with a red bill, is very common and has a screaming note. It feeds upon fruit.

Peafowl. Common in the east of Ceylon. During the day it feeds upon the ground, but at night it roosts in the trees.

Sparrow. The same as the English sparrow, and equally common everywhere that man is, but very rarely to be seen anywhere else.

REPTILES.

Cabragoya. A huge lizard, about four feet long, and black, is not infrequently to be seen near streams in the low-country.

Crocodile. A large crocodile, about 15 feet long, is common in many rivers, and another species in the tanks in the dry country. Bathing places in crocodile-infested rivers, *e.g.* by the bridge at Matara, have to be protected with stockades.

Frogs and Toads. Common everywhere. The frogs are very largely small tree frogs, making a kind of plaintive "chirp" at night. Some can jump to a considerable height and stick on. Toads are common round the walls of rooms at night, catching insects, and occasionally breaking out into a kind of brrrrrrrr noise.

Lizards. These are very common. The most interesting are perhaps the large "bloodsucker," a long green lizard which turns brown if it lie upon the roadside, green if upon the grass, while when excited its head turns red, and the gecko, or house lizard, a little yellow creature, which runs over the walls at night catching flies.

Snakes. There are many of these in Ceylon, both in kind and number, but the popular ideas in England are not borne out; it is rare to see a snake, as it is a very timid animal, and gets out of the way when it hears any one coming. There are several poisonous kinds, such as the cobra, the tic-polonga (a very deadly and rather dangerous snake, though rare, because it is very sluggish, and does not readily move away; recognised by its stumpy tail, and dark blotches on a yellowish ground), &c. The commonest snake is the rat-snake, a large snake which hunts rats &c., and very often lives above the ceiling cloth in a bungalow. It is more often seen than any other, being a harmless and privileged snake. The python is sometimes to be seen in the dry country.

FISH.

There is a large fishing industry on the Ceylon coast, and fish of every kind may be seen in the markets at the seaside, but the usual fish eaten in bungalows is the *seer*, a large fish not unlike a cod, and which will carry better than most in this warm climate. There are some very remarkable fish in the island, which walk, climb, or sing. The walking fish is sometimes to be seen in the north, travelling from one tank to another; the climbing fish is common along the southwest coast, and climbs by bringing its tail round to its head, and then moving the head forward; the "singing fish" (perhaps a mollusc) is to be heard in the lagoon at Batticaloa on clear moonless nights, and makes a noise like distant motor horns. The most interesting fishery is the Pearl Fishery, described below.

INSECTS.

The island contains a fair wealth of insect life. There are many very large and beautiful moths and butterflies, which exhibit a peculiarity not seen in England, in that they

ELEPHANT LIFTING TIMBER.

ELEPHANT CARRYING TIMBER.

(See page 19.)

can, and frequently do seem almost to soar with their wings nearly motionless. Leaf insects, which exactly mimic the leaves of the common guava, are common, but rarely seen, as they keep very still, and are so exactly like the leaves. Stick insects, whose legs lie parallel with their bodies, are also common. Ants abound; one of the most interesting is the common red or tiger ant, a creature about half an inch long, and very fierce. It ties leaves of mangoes and other trees together into nests, which may be seen in many trees. If a couple of leaves be gently torn apart, the ants may be seen to repair them, standing along the edges and so to speak taking hands across to pull them together, while the larvæ are carried backwards and forwards across the rent, spinning web, until it is repaired. White ants, or termites (they are not true ants) are very common up to about 4,500 feet above the sea, and build large more or less conical nests, usually with one or two chimneys. In the chambers of the interior they grow fungi upon a sponge-like mass of vegetable matter, their own excreta from feeding upon decaying organic matter (usually vegetable.) They act as scavengers for decaying substances, always making tunnels of earth up to and over them. They are never to be seen in the light, being very liable to attack by the tiger ant, but always keep inside the tunnels.

Large spiders are very common in Ceylon, and some make enormous webs of great strength across wide spaces. Fireflies are very common at the lower levels, and are especially well to be seen after rain on open lawns. At night there is a continuous buzz in the air, from crickets, tree frogs, and other things. A fairly common insect, which makes a tremendous noise during the day, is the cicada, which buzzes like a policeman's whistle.

The scorpion may also be mentioned here. Ceylon has many kinds, of which the commonest are a large dark metallic green one, and a small brown one.

MOLLUSCS.

The only thing that requires mention under this head is the large snails in spiral shells which may be seen crawling upon the palm trees, and which lay large white eggs almost as large as sparrow's eggs.

PEARL FISHERY.

The two most interesting "zoological" events in Ceylon are the Elephant Kraals, and the Pearl Fisheries. The best account that has been written of the latter is quoted below, by permission of the author, and of Dr. Willey, from "Spolia Zeylanica."

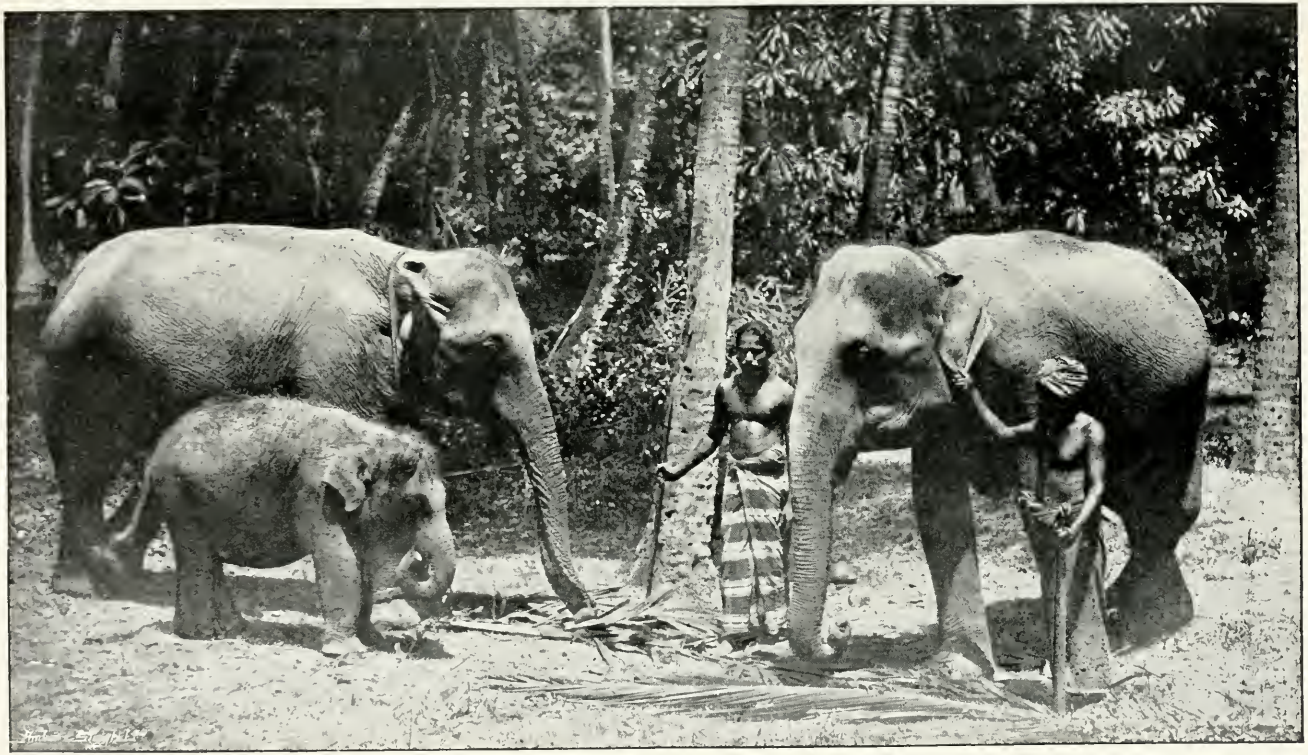
A SKETCH OF THE CEYLON PEARL FISHERY OF 1903.

By Everard im Thurn, C.B., C.M.G.

It is difficult to imagine a more picturesque incident than the "harvest of the sea," when pearls are the crop gathered in. The scene is in the shallow tropical sea which is shut in by Ceylon on the east, the coast of Southern India on the west, and on the north by "Adam's Bridge," a reef partly just awash and partly cropping up in the form of a chain of islands which connects Ceylon with India. In the Gulf of Mannar thus formed it was found at least some 300 years before Christ that there is an abundant growth of pearl-producing mussels—locally called oysters. The banks or "paars" on which these bivalves grow lie from five to ten fathoms below the surface of the water. Thither for 2,000 years, when the rumour goes abroad that the harvest is ripe, divers have come together from the Red Sea and the Persian Gulf and the coasts of India, as well as from Ceylon itself, to gather in the Orient pearls which have been distributed to adorn stately men and beautiful women in many a function throughout the civilized as well as the barbaric world.

The coast lands of Ceylon nearest to the oyster paars are for the most part very sparsely inhabited, and, like the opposite coasts of Southern India, consist chiefly of rolling sand plains, with here and there a little coarse grass or low sparse vegetation or even occasional scrubby jungle. For some mysterious and hitherto unexplained reason this harvest of the sea has always been an uncertain one, apt suddenly, and at any stage in its growth, to disappear; and often it is many years before it re-appears. At most times of the year, and sometimes for years together when the oyster crop is known to have failed, the adjacent shore is a desert in which a human being is rarely to be seen. But nowadays, and throughout the past century, as each November comes round, an official from Colombo visits the paars, takes up a certain number of oysters from each, washes out the pearls, submits these and the facts connected with them to experts, and the Ceylon Government thus decides whether or not there shall be a fishery in the following March and April.

If the decision is in the affirmative preparations have to begin at once. The fact that there is to be a fishery is made known throughout India and the Eastern world, and even in Europe. This is done partly by the prosaic system of newspaper advertisement, partly by that far more wonderful passing of the word from man to man which, as is now well



NEWLY CAPTURED ELEPHANT.

(See page 19.)

known, can carry news across a continent with amazing speed. On land which is at the moment a desert an elaborate set of temporary Government buildings have to be erected for receiving and dealing with many millions of oysters and their valuable if minute contents. Court-houses, prisons, barracks, revenue offices, markets, residences for the officials, streets of houses and shops for perhaps some thirty thousand inhabitants, and a water supply for drinking and bathing for these same people have to be arranged for. Lastly but, in view of the dreadful possibility of the outbreak of plague and cholera, not least, there are elaborate hospitals to be provided.

After an interval of eleven years it was announced at the end of 1902 that there would be a fishery in the following spring. The difficulty of making the above-mentioned preparations in due time was enormously increased by the fact that so long an interval had elapsed since the last fishery, and that so few persons were conversant with what had to be done.....

A fleet of some 200 large fishing craft had gathered, and with the help of an occasional steamer from Colombo had brought together, chiefly from India but partly from Ceylon, a population which during the course of the fishery varied from about 25,000 to perhaps 35,000 or 40,000 souls—men, women and children.

It was my great good luck to pay two visits of considerable duration to the camp and, especially as I had had considerable part in arranging for it, to see it thoroughly....

Another great advantage I had....On a suggestion made to me I gladly provided for the supply of diving dress and apparatus; and these being on the spot my innate curiosity induced me on several occasions to put on this dress and go down to visit the paars and see for myself how the oysters grow.....

The dress once donned and one's heavily encumbered body once got over the side of the ship and on to the ladder, the rest is easy. All that is necessary is to keep one's feet well down when descending the ladder and until one is entirely under water. Neglect, or rather ignorance of this precaution on one occasion brought me into difficulties. Having seen the professional diver swing himself off the ladder instead of first going patiently down to the lowest rung, I thought I would do the same; with the result that I fell on my back into the water, and that the air distributed within the dress instead of being forced gradually up from feet to head, as would have been the case if I had gone down feet foremost, was forced to the front of chest and legs and kept me kicking on my back on the water.

After leaving the ladder feet downward pure passivity is to be recommended until one reaches the bottom. My first depth was 9 fathoms, but it certainly seemed to me to take a very long time to get down those 54 feet, and on the first occasion or two the pain in my ears was intense. . . . . The most surprising thing to me was that as soon as the bottom was once reached all sensation of pain ceased—it was perhaps overwhelmed by the undoubted delight at the novelty of one's sensations and to exasperation at the small control one had at first over one's movements under that pressure of water. I could not by any effort keep my feet quite firmly on to the ground; and each twitch which the man who played Providence to me at the other end of the rope gave—doubtless in his nervous anxiety to guide me aright—had the unfortunate effect of throwing me over on to my back or my side or my face. Finally I found that getting about on all fours was the proceeding which gave me the greatest control over my own movements.

The light was wonderfully good, as a full green twilight, and I could distinctly see the ship 9 fathoms over my head. It is curious that at the same depth in different parts of the sea the quantity of the light varies considerably. This is probably due to the greater or less quantity of matter floating in the water.

The bottom where I first went down was a sandy, slightly undulating plain. Here and there at distances of a foot or so apart were small groups of from six to a dozen oysters, each group fastened by the byssus to a stone or piece of loose coral or dead shell; as far as I could see, no oysters were fastened to the actual bottom. Scattered about among the oysters on the sand were mushroom-shaped and other loose-growing corals, and here and there was a branched coral fastened to the bottom. The fishes and shrimps swam about utterly oblivious of one's presence, especially a lovely little ultramarine blue fish with golden yellow tail. It was somewhat exasperating to throw an oyster at a fish and to find that the missile instead of going towards the fish dropped languidly to one's feet. Of big fish I hardly saw any, and of sea snakes, generally very plentiful in those parts, I saw only one, and that was while I was on my way down one day. Crabs were fairly abundant, and I came across a striking-looking—indeed vicious-looking—animal of this sort (*Rhinolambrus contrarius*).

To one like myself who has as long as he can remember found a peculiar joy in seeing Nature from new points of view, it is pure delight to make one's way along the bottom of the sea picking up shells, corals, starfish (very abundant), sea urchins, and a host of other things which had always before been to one lifeless "curiosities."

One of my chief purposes in going down was to see the divers actually at work. In but a few moments from leaving the ship and the world to which I had long been accustomed I reached a quite new world and, as it seemed, one apart from all other human beings. Then from the gloom of the distance —it was easier to see upwards than for any distance along the ground—some big thing came rapidly towards one; it might have been a big fish, but as it came quickly nearer it proved to be a naked Arab swimming gently but rapidly towards me, his rope between his toes, and his hands and arms rapidly sweeping oysters into the basket which hung round his neck. I tried to speak, forgetting that my head was buried in my helmet, but he glided close past me without taking any more notice of me than did the fish. He had perhaps thirty to forty oysters in his basket by that time. But his time was up—after all he could only stay down from 50 to 80 seconds, while I without inconvenience could stop down for half an hour. In an instant he had changed from a swimming to a standing position, and he was rapidly hauled up from me towards heaven, his feet being the last part to disappear.

As I gazed up after him something dark came down through the water and nearly hit me. It was a stone at the end of a rope thrown down for another diver. It was a warning that I had wandered from my own ship till I was under one of the diver's boats; and I beat a hasty retreat.

I had but to give a pull at the rope, a signal, and I felt myself being pulled rapidly up through the water. I went faster than the bubbles of air which had been rising from my dress, and was carried up through a stream of these bright bubbles. Suddenly it was very light, and some big dark broad thing covered with bubbles was directly above me, and the next moment I hit against it. It was the bottom of the launch, and my next task was to guide myself till I came to and with difficulty succeeded in getting on to the ladder. Then as I stood on the ladder, while the helmet was unscrewed and taken off and the fresh air came, I knew how good fresh air is.

While down on the first occasion or two my nose bled rather unpleasantly, but as this never happened to me afterwards I put it down to the fact that on those first occasions I had a heavy cold in my head.

I was once more back on the Master Attendant's barque, moored in the middle of the fleet on which the divers were all hurrying up to complete their day's load within the given time.

By noon most of the divers are tired out and, if it has been a fairly successful day, the boats are fairly loaded up. Moreover, at noon at this time of the year the wind almost

invariably changes its direction and blows towards the land. At noon, therefore, a gun fired from the Master Attendant's barque gives the signal for pulling up the anchor, hoisting the sails, and beginning the run home. If the paar which is being fished is some distance from the land, the run home may take any time, according to the strength of that fair wind, from three to five hours.

The run home is, I am afraid, a busy and, from a Government point of view, a bad time. The men, other than the tired out divers, occupy themselves nominally in picking over their oysters, throwing away stones, shells, and other useless things which in the hurry have been gathered in with the oysters, and in preparing the loads for easy transport from the boats to the shore. But, as a matter of fact, it is well known that this opportunity and these hours are employed in picking over the oysters in a different sense. The finest pearls almost invariably occur just inside the edge of the shells, where they are held in position by so thin a membrane that they appear ready to fall out at any moment. There is no doubt that many of these finest, roundest, and best coloured pearls are picked out during the run home and concealed about the persons of the boat's crew, and this, despite the fact that each boat has a so-called Government guard on board, and that a further check is supposed to be provided by the Government steam launches which run in with the fleet, and the crews of which are supposed to keep their eyes very wide open for the illicit practices indicated. It is in this iniquitous practice of picking over that one chief reason why the Government does not get its fair share of the pearls lies.

It is as pretty a sight as one can well imagine, this homeward race before a strong wind and over a tropical sea of a hundred or so of ruddy-sailed craft, orientally fantastic in colour and shape, and each deck crowded with a motley crew of brown-skinned men and boys naked but for a few rags of brilliant coloured cloth. Each crew strives to get in first, in order to get first attention and so soonest to dispose of their loads and thus gain rest after a day of really hard labour. There is no lowering of sails as the shore is approached, no slackening of the speed till, as often as not, each boat buries its bows deep in the high sandbank which forms the shore, and comes with a sudden thud so violently to a stand that the expectant crew, each man already loaded with his basket or netted pack of oysters, is almost hurled into the narrow openings in the high wattle fence which surrounds the Government "kottus," the sheds where the oysters are first deposited and divided.

Inside this fence is the huge wattle-walled and palm-thatched warehouse, where the division of the oysters between

the divers and the Government is carried out. It is a vast rectangular building divided by rough posts and rails into long straight avenues of square pens, each pen numbered and provided with its Government clerks and counters.

The crew of each boat in some way gets itself, or is got by the officials, into a separate pen and there dumps down its oysters. Then the oysters are divided between the divers and the Government, in the respective proportion of one-third and two-thirds, by a process of quite admirable simplicity and ingenuity. The divers themselves, and unassisted, separate their own oysters into three heaps, roughly, but as accurately as possible under the circumstances. Then the Government clerk in charge of that particular pen, entirely at his own discretion, assigns one of these heaps to the divers, and this is forthwith bagged or basketed and carried off by them through the exit on the landward side from the enclosure. The actual process of exit is a little trying, for within this narrow opening in the wattle enclosure a small posse of Government officials with occasionally a few police stand on guard to keep order and to exercise a sort of rough search for illicitly concealed pearls. It is a rough and noisy but very good-humoured crowd; and in the course of this proceeding not a few pearls are in some mysterious way discovered and confiscated. If the departing crew is too obstreperous they are detained for such time as is necessary to deprive them of all their oysters. That this last proceeding is nothing more than rough justice is, I think, shown by the fact that the divers recognize it as such, and seldom or never complain once they have lost their oysters.

But even when a company of divers has successfully passed through the kottus and escaped through the narrow wicket gate on the landward side of that — for an hour or two each day — seething mass of humanity and oysters, their troubles of the day are not over, for they are at once swallowed up in a surging crowd of natives eager to buy from them their oysters by the dozen or the half-dozen, or even by twos and ones. The prices then given for each individual oyster or handful of oysters are comparatively enormous, and the oyster bearer has often divested himself at highly remunerative rates of his whole burden before he emerges at the other side of the throng. If he has any left, he hurries to a native buyer and disposes of the remainder. Then he hurries to wash the brine off his tired limbs in one or other of the tanks specially reserved for the purpose; and at last follows much-needed rest.

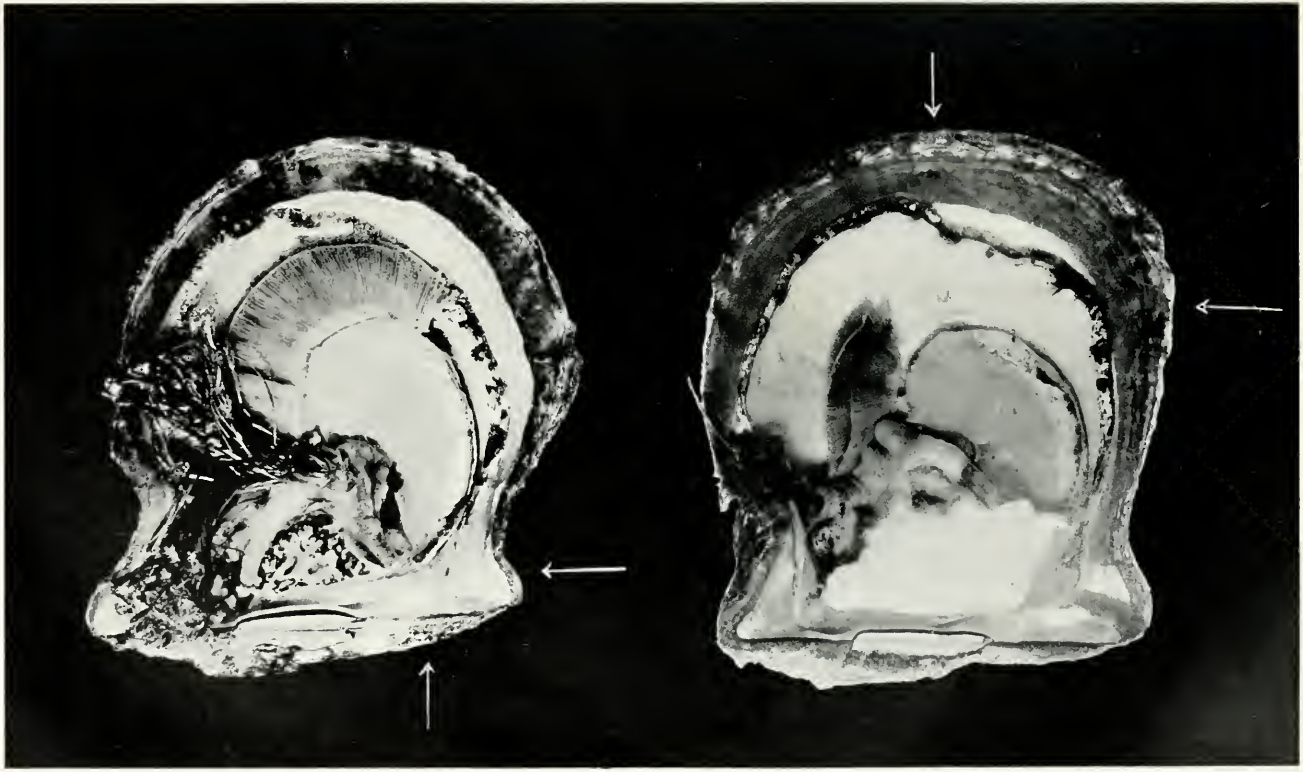
In time every boat has reached the shore and every boat's crew has, as above described, passed through the kottus.

No sooner has the load of any boat been deposited, divided into lots, and the diver's lot carried off, than the Government counters begin to count the share left for Government, and, by using an ingenious system of tallies, do this so quickly that the millions of oysters which generally form the Government share of a day's take are counted with remarkable accuracy within a couple of hours or so. Each counter reports his total to the representative of the Government Agent sitting in one corner of the kottu enclosure, and by eight or nine o'clock almost the exact numbers composing the great heaps of oysters on the kottu floor is known and reported. The kottus then are closed for the night, and a few sentries are left throughout the night to watch by the light of the long lines of dimly burning cocoanut oil lamps to see that none of the bivalves are removed or tampered with.....

At about 9 P.M. each night the Government Agent repairs to the court-house, where are collected all who wish to buy oysters wholesale. The Government Agent first announces how many of the bivalves are lying in the kottus and puts these up for sale by the thousand. Any number of thousands, from one to perhaps fifty thousand or more, are taken by individual purchasers or by syndicates. The prices in a single night vary curiously and inexplicably; a high price, say, Rs. 35 per 1,000, may be given at the beginning of the evening, later not more than Rs. 22 can be extracted, and yet again later higher prices prevail. There is keen and zealous competition, the larger buyers competing against the smaller, or all combining in a ring against the Government auctioneer. The day's catch is, however, generally sold within the same night, but if not the balance is disposed of privately the next morning.

Quite early the next morning each purchaser comes to the Government Agent for an order for the number of oysters knocked down to him the previous night, and at once sets to work to remove these to his own private shed; and before noon the Government Kottu is cleared and ready for a fresh supply in the evening.

Meanwhile, at about the previous midnight or soon after, the wind then at that season of the year beginning to blow from the land out to sea, another fleet of boats starts out for the paars, reaches its destination by daybreak, anchors, and waits for the sea to become smooth and the light sufficient. While waiting, a narrow plank or bamboo platform is let down and fastened over each side of the ship; and on these platforms, when the day has advanced far enough, the divers rest squatting between their dives. And then the history already told of the previous day's take is repeated.



DISSECTIONS OF THE PEARL OYSTER, SHOWING PEARLS.

[*Photo by J. Hornell.*]

(See page 31.)

The washing of the pearls from the oysters is a most tedious, primitive, and somewhat disgusting process. The oysters are simply left to rot, the process being much assisted by the vast clouds of a black "housefly," which after the first day or two permeates the whole camp. After a week's rotting the seething and disgusting residue is sorted by hand, and the pearls, or such of them as are of sufficient size, picked out. The residue is then dried in the sun and becomes what is known as "sarakoo." This sarakoo is at leisure sorted and winnowed and examined over and over again till the smallest-sized pearls have been extracted.

GOVERNMENT DIVERS PICKING OUT PEARLS FROM OYSTER WASHINGS.

Many of those who have come to the camp have come not to buy oysters, nor to wash them, but only to buy pearls. Of these, some are small people, but most are wealthy capitalists from the great towns of India and from Colombo. They live in two special streets, where all day long they sit on the ground in their open-fronted shops, toying with pearls spread on the dark coloured cloth which lies for that purpose on the ground in front of them. On the cloth, too, is a delicately formed copper scoop, shell shaped, for lifting the

pearls, neat little scales with a quaint-shaped case to hold them and with weights, the larger of agate, the smaller of bright scarlet seeds, also a set of basket-shaped sieves for grading the pearls. When no one is present to sell they minutely weigh again and again the larger of the pearls, sort them according to size, colour, texture, and roundness, tie up the better specimens carefully in little screws of linen, put them away in the great strong box, which forms almost the only furniture of the shop, take them out again, and discuss each one over again with their partners and friends. Then some washer comes along with pearls to sell, and the whole joy of chafering begins, and lasts till one is tired of watching.

Meanwhile along the street a busy crowd is always passing in front of the shops. Many carry great brazen vessels of water from the tank, others drive home bullocks with loads of firewood or poles and palm leaves for new huts. Farther down the street are the shops of the silk or cloth seller, the brass and tin workers, and countless provision shops.

Here and there in the middle of the broad street squat groups of pearl cutters, whose business it is on small wooden tables and with a primitive bow-drill to pierce pearls for stringing and to cut into something like presentable roundness the rough irregular pearl-like lumps which are found not in the flesh of the oyster, but attached to the inside of the shell.

So for some two months the business goes on, till the divers are worn out by diving and the pearl merchants are satiated with their purchases. Then the Government Agent is appealed to to proclaim the closing of the camp, and when he does so almost in a day the whole big population "fold their tents like the Arabs and as silently steal away," and in a very few days the once busy camp is left only to the jackals to scavenge up the refuse and to prowl among the great mounds of fresh oyster shells which have just been added to the accumulations of so many years' fishing.

The whole thing is intensely interesting and picturesque, but afterwards it leaves much to think about and much to hope for. The thing has been going on in the same way for centuries, and would so continue if the busy Western mind were not now turning to thoughts of how to improve on this old system, to make the harvest of the sea more regular in its occurrence, to economize the present vast expenditure of human energy now wasted in fetching up the oysters from the depth of the sea, and to extract the pearls from the oysters with greater rapidity, certainty, and with greater security that the Government gets its proper share, and with greater regard to sanitary conditions.

The whole thing is now at last about to change, and the points which I have just enumerated are to be attended to.

Professor Herdman, with Mr. Hornell, is about to give us a long and full report on their careful investigations of the life-history of the pearl oyster in these seas; they are about to tell us why the crop is so uncertain, and how it may be made more continuous.....

Professor Herdman of Liverpool, with his assistant Mr. Hornell, made an exhaustive enquiry into the pearl fishery, with the special object of discovering how the pearls were

SHELL HEAP OF OYSTERS AT LAKE TAMPALAKAM.

formed, and the life-history proved of great interest. The fine "orient pearl" as it is called, as distinguished from the small seed pearls, is due to the irritation caused in the oyster (really a mussel) by the presence of the dead bodies of tapeworm larvæ. The living larva gets into the body of a trigger-fish, which feeds upon the pearl oysters, and from them into large rays, which feed upon the trigger-fish. From the ray, in which the organism becomes sexually mature, the embryos re-enter the oyster.

Lately, the pearl fisheries, after some local opposition, have been leased to a London company, and the fishery is more carefully conducted. The Company holds the lease for twenty years, upon condition of spending so much a year upon the scientific treatment of the banks, by transplanting oysters, and in other ways.

Another pearl is obtained at Tampalakam bay from the window-pane oyster *(Placuna placenta)*, but is of little value, except that some Hindoos value the lime made by burning them for chewing with betel.

Chapter IV.

BOTANY, VEGETATION AND AGRICULTURE.

BOTANY AND VEGETATION.

CEYLON, though small, has a great variety of climates, due to differences in rainfall and elevation, and with them a corresponding variety of vegetation. The flora of the island seems at first sight comparatively rich, being no less than 3,000 species of flowering plants and ferns, but Ceylon as a matter of fact lies in the poorest part of the Indomalayan region, and has but a scanty flora compared with some of the Malayan islands, such as Java. At the same time, there is much of interest about it. Many of the plants are the same as, or closely related to, those of the peninsula of southern India. This is especially the case in the dry north and east of the island, which have a poorer edition of the flora of the eastern Madras Presidency. A large number of species in Ceylon, mainly in the wet southwest region, show close relationship to those now existing in the Malay Peninsula, Java and Sumatra. And yet others show relationships to the plants of the African islands, Madagascar, Mauritius, &c. The mosses, liverworts, seaweeds, and fungi of the Ceylon flora have as yet only been very incompletely worked up, but will probably amount to another 4,000 or more in all.

The chief determinant of the climates is the position of the mountain mass of south-central Ceylon across the line of direction of the two monsoons. The southwest monsoon brings much rain from April to September to the western side of the hills and to the south-western plains, but little elsewhere. The northeast monsoon, from October to March, brings a good deal of rain at first to all parts of the island, but after Christmas chiefly to the eastern side of the hills.

The chief climatic zones thus are (very roughly, for of course there are many local peculiarities) the "wet low-country" from Colombo to Matara and inland as far as the 1,000 foot level on the hills, with rain at all times of year (least from January to March) and a rich vegetation; the "dry

low-country," comprising the rest of the plains, principally in the north and east, with rain mainly from October to January, and not infrequently in April also (nearer to the mountains), and the rest of the year dry; and the "montane zones" of various elevations, often divided into two chief zones, an upper montane above 5,000 feet, and a lower montane below that elevation. The eastern side of the mountains is rather drier than the western, and gets its dry season rather in the southwest than the northeast monsoon, so that the periods of flowering and fruiting of the plants differ by several months

A WOODY CLIMBER.

in the two regions, the eastern side of the mountains having in fact the climatic periodicity of the southern side of the equator. Para rubber, to take an example, ripens its seeds at Badulla in February, near Colombo in July.

To briefly describe the vegetation of the zones in order, the wet low-country is the most thickly populated part of Ceylon, and one that has to a large extent been a long time under cultivation. It was, there can be little doubt, once entirely, or almost entirely, covered with a sheet of dense forest, but of this only portions now remain, as for instance

the Singha Raja forest to the south of Ratnapura, and the forests on the lower slopes of the Adam's Peak range. Even these are hardly continuous forest for any great distances. Lately, with the great extensions of rubber cultivation that are going on, a good deal of the remaining forest in this zone has been cleared for planting, and before long there will be few isolated pieces left, but only the larger forests just mentioned.

Where the forest does still exist, owing to the heavy and well distributed rainfall the vegetation is very rich, and there are many very large and well grown trees, matted together with a great number of climbers, often very stout and woody, and with a fairly dense undergrowth upon the ground. The forests are typical equatorial, evergreen forests, the main mass of trees running up to a considerable and very uniform height, and a number of smaller trees forming a kind of upper undergrowth. Among the larger trees the family of the Dipterocarps takes a very prominent place, being represented by numerous species of Doona, Shorea, &c., trees with tall straight trunks, yielding useful timbers and resins. The forests contain numerous trees of economic value, but as the more accessible timber trees were largely reduced before the Government undertook a proper conservancy, they do not as yet yield to such profit as might be expected from a comparison with the forests of India, (*cf.* Chap. V.)

One great cause of destruction of the forests of Ceylon has been the wasteful native practice of *chena*. This is now perforce extinct in the western province, but may be seen everywhere else, *e.g.* on the foothills coming up to Kandy by the railway. The natives cut down the smaller trees and bushes in a patch of forest, and then in dry weather set fire to it, usually killing the larger trees by so doing. On the ground thus cleared, and which of course contains a large quantity of decaying organic matter, and is thus rich in plant food, the villager then grows two or sometimes three crops of cereals or other things and then abandons the land, which grows up in scrubby vegetation, and seldom, if ever nowadays, goes back to forest. Vast areas of good land have been wasted in Ceylon by this destructive practice, and in the southern province, especially, there are almost hundreds of square miles covered with a scrub of small bamboos, growing on old chenas. Chena is as far as possible prevented on crown land nowadays, and this is one of the grievances of the native against British Government, for he considers that so long as there is land left to chena, he should be left free to chena it. There are of course vast areas of chena in private ownership, with which the Government cannot interfere, and experiments

are in progress to see whether by some system of rotation of crops it might not be possible to utilise this land in a more permanent and profitable way.

AGRICULTURE.

Ceylon owes practically all her agriculture to the introduction of what we may term in a general way "new products," *i.e.* products not previously cultivated there. The earlier pre-Sinhalese inhabitants must have had a very poor food supply, and in fact can hardly have been so well off as the Veddahs of to-day. The island contains in its native flora but few food yielding plants of any value, though there are many yams and other roots. Wijayo, the Sinhalese conqueror of 500 years B.C., is said to have introduced rice from India, and this soon became, and has remained, the national cultivation, in spite of the poor yield obtained here. As the Sinhalese are said to have landed in the north, and spread southwards, this was also probably the first real cultivation in the island, though cinnamon, which grows in the southern parts of Ceylon, is an actual native of the country. As the Sinhalese spread into the south, they probably discovered the uses and qualities of cinnamon, and got the spice from the jungle trees.

Soon after the conquest of the north, the Sinhalese began the construction of the wonderful irrigation works, whose ruins, or restorations, cover that part of the country. These are described in another chapter and need only be mentioned here. There is little doubt that their primary object was to irrigate the country for the cultivation of rice, and they must, when in full working order, have done this very efficiently, though absurd exaggerations have been current about the population supported on the land, and it has been put down at as many as ten to twenty millions. A very slight calculation will suffice to show the untenableness of this position. Assuming that one half the total area of the dry low-country of Ceylon was available for rice, the other half of course being occupied by the hills or ridges and by irrigation tanks, we have an area of 10,000 square miles. Assuming the very dense population of 600 to the square mile, we only get a total of six millions, which is probably the outside figure that at any time represented the number of people in the island.

As the Tamil invasions progressed, the people were driven into the south, and probably greatly reduced in number, and rice cultivation in the wetter regions became the national task. The irrigation works in the north, probably from want of care, were reduced to ruins, and the country once more grew up in the forest which to-day covers all but small portions of it.

In early times there was probably no export trade whatever, and in fact there was probably but little intercourse with Ceylon, except perhaps at Galle (which is sometimes supposed to be the biblical Tarshish) at which the products of west and east were exchanged, though probably there was but little Ceylon produce among the total, until cinnamon and precious stones began to be traded in. This would happen as the Sinhalese came more into the south, and by the time of the Portuguese, a few hundred years after the collapse of the northern Sinhalese kingdoms, there was already an appreciable trade.

Until English times, there was but little export trade from Ceylon in any other agricultural product than cinnamon. Its cultivation was a strict Government monopoly, first under the Dutch, and then under the British Government. At one time the possession of a stick of cinnamon was an offence punishable by death. "The trade was at its height when Nees wrote a disquisition upon it in 1823; but opinion was already arraying itself against the rigidly exclusive system under which it was conducted. This was looked upon as the more unjustifiable, owing to the popular belief that the monopoly was one created by nature; and that prohibitions became vexatious where competition was impossible. Accordingly in 1832 the odious monopoly was abandoned; the Government ceased to be the sole exporters of cinnamon, and thenceforward the merchants of Colombo and Galle were permitted to take a share in the trade, on paying to the crown an export duty of three shillings a pound, which was afterwards reduced to one.

"The adoption of the first step inevitably necessitated a second. The merchants felt and with justice that the struggle was unequal so long as the Government, with its great estates and large capital, was their opposing competitor; and hence, in 1840, the final expedient was adopted by the crown of divesting itself altogether of its property in the plantations." (*Tennent*).

From that time the cultivation has steadily increased, mainly on the sandy soils between Colombo and Galle, and at present there are about 40,000 acres of cinnamon in cultivation, Ceylon still holding a practical monopoly of this trade.

For many years after the arrival of the English, the colony went on in the old way, with but little export trade, and not paying its way as regards the expenses of Government. The change, from an insignificant eastern possession to the richest and most prosperous of the crown colonies, dates from the time of Governor Sir Edward Barnes, who, soon after the capture of the Kandyan kingdom, opened, in 1824,

the first plantation or "estate" in the hills. Here he tried sugar and many other Indian crops, the general idea then held being that Indian crops would succeed in the very different climate of Ceylon, but after a while it was discovered that the hills were eminently suited to coffee, and with this the "planting" era began, to continue to the present day, when it is in the most stable and prosperous condition it has ever known.

The time was favourable, the duty on coffee in England had just been reduced, its consumption was increasing in Europe, and the West Indies were handicapped by difficulty with the slaves. By 1838 the success of the industry was assured, and in that year 10,401 acres of Crown forest land were sold to planters, while in 1841, when the rush was at its height, no less than 78,685 acres were disposed of. "The coffee mania was at its climax in 1845. The Governor and the Council, the Military, the Judges, the Clergy, and one-half the Civil Servants penetrated the hills and became purchasers of Crown lands.....capitalists from England arrived by every packet.....So dazzling was the prospect that expenditure was unlimited; and its profusion was only equalled by the ignorance and inexperience of those to whom it was entrusted. The rush for land was only paralleled by the movement towards the mines of California and Australia, but with this painful difference, that the enthusiasts in Ceylon, instead of thronging to disinter, were hurrying to bury their gold." (*Tennent.*)

The inevitable collapse soon followed, and for some years the coffee industry was almost paralysed, but by 1855 it had more than recovered the lost ground, and was conducted on more practical and economical lines. From that date to about 1882 it was the staple export industry of the Colony, reaching its maximum in 1875, when almost 1,000,000 cwts. of coffee were exported. About 1870 the plants began to be noticeably attacked by a fungus blight—*Hemileia vastatrix*, the coffee leaf disease—which spread steadily and irresistibly over the vast sheet of coffee plantation in the mountains, and was disregarded until too late. By 1880 the industry, though still considerable, was in a parlous condition, and the planters in great distress, but with the most commendable pluck they set themselves to redeem their fallen fortunes, aided by the efforts of the Botanical Department of the Government. Cinchona trees—the source of the valuable alkaloid quinine—introduced by Government years before, but disregarded so long as coffee was profitable, were now the salvation of the island. Large areas were planted with this product, and at first large profits were realized, but soon over-production

rapidly brought down the price of quinine, to the incalculable benefit of sufferers all over the world, but to the ruin of the profitableness of the Ceylon bark industry—a ruin consummated by the attacks of a canker disease and the competition of better barks from Java. The gap, however, was bridged and by the time that cinchona had passed its zenith it was clear that tea was the industry of the future, and large areas were being rapidly planted up in it, while an appreciable export trade was beginning. The extension of tea cultivation went on very rapidly until about 1896, when it stopped, and since then there has been a little depression from overproduction, but this has now passed by, and at the present moment the industry is in a very prosperous condition. About 380,000 acres are planted in tea, a larger amount than was ever in coffee—now practically an extinct industry here—while at the same time, so much better is the prosperity of the island distributed, and so many more strings are there to the bow, the export of tea makes less than half the proportion of the total exports that coffee once made. Coconut products, cacao, rubber, cardamoms and many other things now take an important part in the total value of the exports.

At the same time that tea was coming in, and cinchona failing, many other products were being carefully tried, and some of these have, so to speak, come to stay, *e.g.* cacao, cardamoms, &c. Quite important subsidiary industries have grown up in cacao and cardamoms, and Ceylon cacao gets about the highest prices upon the market.

Steadily pushed by the Botanical department, yet other industries have been formed during the last ten years. Thus coca, the source of the valuable drug cocaine, is now cultivated in Ceylon, and the coca exported hence forms the standard of the market. Camphor, too, has been steadily taken up since 1901, and now there are about 1,000 acres devoted to this product, which at present is paying very well. Vanilla was largely taken up a few years ago, but the production of the artificial vanillin has destroyed its profitableness.

The great new industry of recent years, not only in Ceylon, but also in Malaya and other tropical countries, is undoubtedly rubber. In 1875 the Government of India sent an expedition to the Amazon valley to get seeds and plants of the valuable rubber trees that grow there, and which still supply about half the world's consumption. These were successfully brought to Kew and thence to Ceylon, India not then having any Botanic Gardens with a suitable climate. In 1897-9, seed beginning to be plentiful, the Botanic Gardens made numerous experiments upon the methods of tapping,

showed that improved yields could be got by taking advantage of the wound response—or increased flow that comes in a few days from any part of the bark that is tapped—and worked out the best way of coagulating the rubber into biscuits, as they are called upon the London market. The result was the taking up of rubber cultivation by the planting community, slowly at first, but with increasing rapidity as seed began to be available in larger quantity, until in 1906 the area planted in rubber was about 120,000 acres, and extension was still going on rapidly. Exports of rubber began some years sooner, and very high prices were obtained.

While all these "new products" have been introduced and spread, mainly by the botanical department located at Peradeniya—as to which one still occasionally hears the enquiry as to what good it is—the older products of the island have also extended their range, more especially coconuts, which at present occupy the largest area in the island under any one crop (perhaps 750,000 acres.) The vast area of this palm seen along the southern coast line from Colombo to Matara was largely planted in Dutch times almost at the point of the bayonet, the natives being averse to anything of the kind, but now they have learnt that there is money in coconuts, and extension of planting is continually going on, while European planters have also embarked a good deal of money in this cultivation, which is often called the consols of Ceylon planting. The area under rice, on the other hand, increases with extreme slowness, and this is hardly to be wondered at when it is remembered that this cultivation, in Ceylon at any rate, is extremely unremunerative.

Not only is the native of Ceylon what may be called a lazy, happy-go-lucky agriculturist on his own account, but he will not readily take up even the plentiful labour provided by the numerous European planting estates, and these are worked almost entirely by imported labour from South India, the Tamil coolies—as they are called, *kuli* being the Indian word for a man on daily pay—of the Madura and other districts coming over in tens of thousands to work on the tea and rubber and other estates.

The advent of the English planter has been of the greatest value and importance to the island in many ways, for it has vastly increased its wealth, and enabled public works of general utility to be carried out in all directions.

TYPES OF VEGETATION AND AGRICULTURE.

As the main types of vegetation, and most kinds of agriculture, may be seen from the railway carriage, it may be well to describe them in very brief outline. Following the

RICE FIELDS ON THE KADUGANNAWA PASS.

(See page 43.)

PLATE XI.

order in which they appear on the railway, going first of all to Kandy, they are described below in the following sequence:

Rice Fields
Coconut Estates
Mixed Garden Cultivation
Chenas
Plantains
Rubber
Arecanuts
Tea
Cacao
Cardamoms
Up-country Forest
Up-country Patanas
Cinnamon
Shore Vegetation and Mangroves
Citronella
Dry Country Forest and Chena
Palmyra Palms
Gardens in the Jaffna Country

RICE OR PADDY FIELDS.

After crossing the Kelani river, on the Kandy railway the country is of very uniform look for about 30 miles. The valleys, rarely more than a few hundred yards in width, are filled with paddy or rice "fields," the "high lands" between them occupied with coconut palms, or with the characteristic mixed garden cultivation of the Sinhalese villager. The paddy fields may frequently be seen in almost all stages, from the ploughing to the ripening, on the same journey, for there are two crop seasons in the year, one from January to March, (the Maha crop as it is locally called) one from August to October, (the Yala crop). The beautiful rich green of the paddy fields makes them a very pleasant sight while in growth, and many picturesque sights are to be seen in the harvesting. The water is let out of the fields, and the grain ripens on the dry soil. Mowing with any form of machinery is of course far beyond the native, could he even afford it, and the grain is reaped with sickles. It is thrashed in the old biblical manner by the aid of buffaloes or cattle, which are marched round and round over the grain lying on the ground, and winnowed by throwing it up into the air from flattish basket-work trays, and catching it again.

The whole process of paddy husbandry is primitive and old world in the extreme, and from its having been the national pursuit for so many generations, it is hedged round with all kinds of superstitious observances. It may not be amiss to quote some of these from a paper by Pohath, describing those of the Kandyan mountaineers.

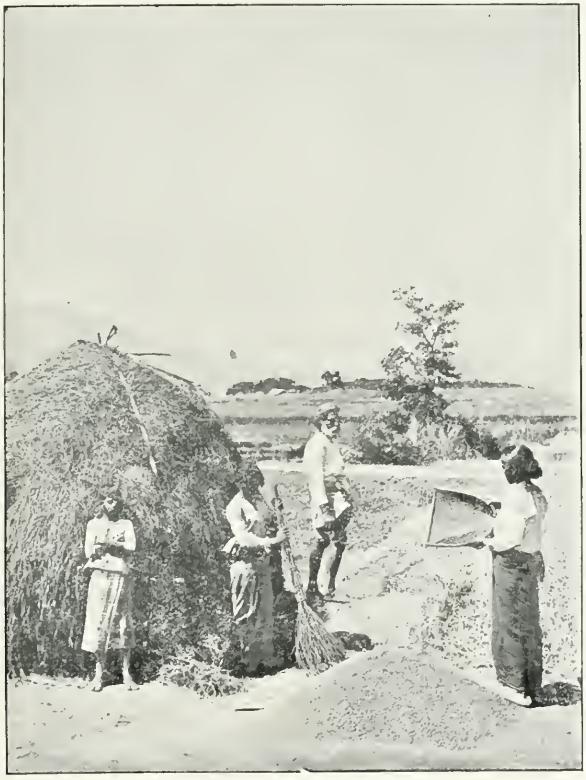
"The goiya (cultivator) presents himself before the Neketrala (village astrologer) on a Monday or a Wednesday with the customary offering of forty betel leaves and arecanuts

and expresses his wishes in a humble attitude. The Neket-rala then informs his petitioner, after certain astrological calculations, of the circumstances upon which the success or failure of his undertaking depends. On an auspicious day (according to the Neket-rala) the goiya, after partaking of the morning meal, wends his way to his land with a mamoti (a kind of large hoe), his face turned towards the favourable direction of the horizon as indicated by the astrologer. Should the goiya on this journey encounter sights or sounds which portend failure, *e.g.* the hooting of an owl, the cry of a house lizard, the growling of a dog, the sight of persons carrying weapons capable of inflicting injury, &c., he immediately turns back and retraces his steps homewards. Again the Neket-rala

HIGH LANDS AND PADDY FIELDS.

has to be approached in the manner before described, and consulted as to a lucky hour. Were the goiya to meet with a milk cow, vessels filled with water, men dressed in white, &c., when he sets out towards his land, it is considered very propitious.....On the following day the goiya entertains such of his fellow-villagers with rice cakes, milk rice, &c., as are willing to co-operate with him in the cultivation of his field. At the lucky hour these villagers armed with mamoties proceed to the land, headed by the owner, and turning their faces in the direction of Adam's Peak give out the cry of Ha pura hodai (Ha, a good beginning.).....When the field is ready for sowing,....On the advent of a lucky hour,

the goiya leaves his dwelling after having recited a number of religious stanzas, bearing an arecanut flower and a pata (handful with the fingers stretched out) of paddy (rice in the husk). Having arrived at his field, with his eyes turned towards the favourable region of the sky, he buries the paddy in a corner of a ridge, having first moulded the earth at the spot so as to resemble a peculiarly shaped symbolic figure, and lays the arecanut flower on the top of the mound.....



WINNOWING PADDY.

"The time of ploughing is one of great solemnity to the Kandyan paddy cultivator. The Neket-rala is again consulted for the purpose of finding a lucky hour.....

"Thinning is done by the women when the paddy is about three months old....No one dare cross the ridges with an open umbrella while the women are at work, unless there be

urgent need for so doing, and permission be first obtained, otherwise mud &c., are thrown on the intruder whoever he be.....

"When the paddy is approaching maturity, other ceremonies are gone through; the goiya after purification, places three ears of grain on a leaf of the Bo-tree, which is held in great veneration for reasons too well known to need mention* and buries them in the kalavita or threshing floor, at the same time chanting some mystic words, invoking the gods to protect the crop from flood, fire, birds, and wild beasts..... the Neket-rala, attired in fantastic dress, describes a peculiarly shaped figure with ashes on the kalavita with a view to preventing sorcery and other evil influences....."

When such complicated ceremonies are gone through for such simple operations as are involved in the cultivation of paddy, it is not surprising to find that the methods of cultivation are also very old and leave much to be desired in matters of economy and efficiency.

The fields are cleverly terraced, and supplied with water from the impounded streams in the valleys. Two crops of rice are in general obtained in the wet districts of southern Ceylon, one in each monsoon. The heavy rains of the beginning of the monsoon are allowed to go by, and the fields are ploughed in its second or third month, with a very primitive plough, consisting practically only of two stakes fastened together at right angles, and drawn by buffaloes, which on account of their love of watery and muddy places are the animals always employed in the cultivation of rice. The seed is sown broadcast on the wet mud obtained by ploughing and hoeing, and soon afterwards the water is allowed into the field, and the paddy grows to maturity standing in a few inches of continually changing water. A little before it is ripe, the water is run off, and the grain ripens on the dry ground. It is then cut with sickles, and threshed, as above mentioned, by treading it out with buffaloes or cattle, or in some districts with the feet of men holding on to a bar fixed above the ground at a height of about 6 feet.

The visitor, seeing the lowlands of Ceylon covered with rice fields, will naturally be surprised to learn that the island imports enormous quantities of rice, but such is nevertheless the case. The villager has no rice to sell, only, with the very poor yield obtained here, having enough for his own wants, and all the rice used by the townsfolk, and by the hundreds of thousands of Tamil coolies employed in Ceylon, is imported

*Under this tree Gautama attained his Buddha-hood, and it is sacred in Ceylon. There is a very famous old tree in Anuradhapura.

COCONUTS ON THE WEST COAST.

(See page 47.)

PLATE XII.

from India, the island importing as much as it grows. The duty on this import is one of the main sources of revenue of the local Government.

COCONUT ESTATES.

Between the paddy fields are rather higher grounds, the ridges between the valleys in fact, and in very many cases, along the Kandy railway, these are covered with estates or plantations of coconut palms. This palm, with its curved stem, large, nearly spherical head of long feathery leaves, and big green or yellow fruits, is one of the most characteristic features of Ceylon, and occupies an enormous area in the island. Not only are there vast spaces covered only with this palm, but almost every villager has more or less of the palms around his dwelling.

A COCONUT PALM.

This palm is found everywhere on tropical coasts around the world, the large woody fruit, covered with a fibrous husk, being easily floated without damage for enormous distances. Ceylon perhaps contains the oldest and largest cultivations of it, but it is extensively grown in every tropical country, and the cultivation is continually extending, new uses being found for its products.

There is probably no single plant whose products are capable of so great a variety of uses as the coconut palm. The villager obtains from it many of the necessaries of life. The large leaves are woven into "cadjans" for thatching, and into mats, baskets, &c., their stalks and midribs make fences, brooms, yokes, and many other utensils. The trunk affords rafters, beams, troughs, canoes, and many articles of furniture. The bud or "cabbage" at the apex of the stem makes an excellent vegetable, and is made into preserves. When the palm is flowering, the main flower stalk can be tapped for "toddy," the juice running up to the flowers, which exudes

in large quantity, and contains a lot of sugar. Evaporation of this furnishes a coarse but good sugar known as jaggery, and its fermentation produces an alcoholic drink, from which distillation produces the strong spirit known as arrack, while further fermentation yields vinegar.

The young fruits (locally known as *kurumbas*) contain a pint or more of a cool sweetish watery fluid, affording a most refreshing drink, and the only unboiled drink to be obtained in most country places which it is safe for a European to indulge in. As the nut ripens the water decreases and the kernel hardens. The nuts are gathered at about ten months old. Their kernels are eaten raw, in curries, and in other ways, milk is expressed from them for flavouring curries and other purposes, and oil is extracted from them by boiling. The commercial oil, in which there is a very large trade, is obtained by first drying the kernels in the sun or by artificial means till they form what is termed copra, and then pressing this copra in mills. About two-thirds of the weight is obtained as oil, and the refuse "cake," or poonac, forms a valuable fattening food for cattle and poultry. The oil is occasionally used for lighting, but its great use, especially in Europe, is for soap making; it also forms a good hair dressing, and is largely used for the manufacture of candles, as it separates under pressure into a hard wax-like body, stearine, and a liquid oleine. The shell of the nut, after the kernel is taken out, forms drinking cups, bowls, spoons, handles, and many other things; it also makes an excellent smokeless fuel, and yields a good charcoal.

In recent years a large industry has sprung up in desiccated coconut, *i.e.*, the kernel of the nut, with some of the oil expressed, sliced and dried in special desiccators. The product is soldered up in lead-lined boxes and exported for use in confectionery.

The thick outer husk of the coconut, rarely seen in America or Europe, contains a large number of long stout fibres running lengthwise. The villagers obtain these by splitting the husks, rotting them in water, and then beating out the soft tissue from the fibres. There are also many large mills where special machinery is used for preparing coir, as this fibre is called. The uses of coir are many; the fibres are graded according to their stoutness, and used for making brushes, yarn, rope, mats, and for many other purposes. There is a large export to Europe and America.

It is supposed that the coconut palms of the island produce about 800,000,000 nuts annually, and that about half of the crop is used locally. The export trade is very large, and during 1903 the chief elements of it were as follows:—

Coconut Oil	.. ..	665,357 cwts.
Copra	.. ..	721,575 ,,
Poonac	.. ..	299,972 ,,
Desiccated Coconut		.. 485,269 lbs.
Coir	.. ..	244,965 cwts.
Arrack	.. ..	72,619 gals.
Nuts	..	13,129,349

MIXED GARDEN CULTIVATION OF THE SINHALESE.

We have used this term to describe the type of cultivation which may be seen on much of the high land between the paddy fields. It is somewhat complimentary to call it cultiva-

MIXED GARDEN CULTIVATION.

tion, when it consists of simply sticking in the trees and shrubs and allowing them to grow, but that may pass. Enormous areas are thus covered. At first sight there appears to be a miscellaneous jungle upon the land, but on closer inspection this resolves itself into an admixture of a few dozen (at most)

of sorts of trees, shrubs and herbs. Conspicuous among them are the coconut (see above), which supplies many of the necessities of life to the villager, the jak, the mango, the areca palm, and less so the silk-cotton, the papaw, the plantain or banana, the orange or lime, the breadfruit, the kitul or toddy palm, &c., while among the herbs are yams of sorts, and other things. The general composition of this mixture, in any one district, is much the same, and once planted, it will go on for many years without attention. This it is, perhaps, which so appeals to the villager in this method of "cultivation," for of course the yield is but small, and as a rule his plants are of but poor varieties.

Beyond Veyangoda the railway passes into the foot hills of the mountains and other cultivations begin to appear, as well as patches of actual forest (p. 37). This is a more thinly peopled district, and one may still see considerable areas of chena, either in actual cultivation or abandoned and growing up in scrub in the ordinary way.

CHENAS.

This is the favourite mode of cultivation among semi-civilised and eastern peoples (p. 37). On many hill slopes, cleared patches may be seen. These may be new clearings for planting, or (at higher levels) newly-pruned tea, but in the low-country are often chenas. The old chenas are covered with a miscellaneous scrub of many kinds of bushes and small trees.

PLANTAINS.

Beyond Polgahawela the line passes through large plantations of plantains—as they are universally called in Ceylon—or bananas, as they are called in England and the West Indies. These are not cultivated here for export to Europe, but for the supply of the towns, such as Colombo. On a rich soil, such as they get in this district, they do very fairly well, and yield good profits. The cultivation is entirely in native hands.

RUBBER.

Between Polgahawela and the next station, the line passes on the right a plantation of rubber—the socalled Para variety—made by the Government Forest Department some years ago, but now in private hands. This product is now one of great importance in Ceylon, and is rapidly rising to the third place in the export lists, tea and coconut products occupying the first two places. Its history almost reads like a romance.

TAPPING RUBBER IN V's.

MAKING BISCUITS ON THE SMALL SCALE.

(See page 52.)

Thirty years ago an expedition was sent by the Government of India to the valley of the Amazon to collect seeds and plants of the rubbers there growing, and they returned with seeds of this and other rubbers to Kew, from whence the plants were sent to Ceylon in 1876. Until 1897 the supply of seed was but small, and no one knew whether any profitable return might be looked for in growing these plants. In that year the writer made the first experiments with the trees growing in the Botanic Garden at Heneratgoda, and found that a return of perhaps 120 lbs. of rubber per acre per annum might be expected. It proved that all previous experiments had given too small results, because the remarkable phenomenon

RUBBER PLANTATION AT HENERATGODA.

of the "wound response" had not been noticed. If a tree be tapped within ten days near the same spot at which it was first tapped, the yield of rubber is about twice as large. This was a very important discovery, and made the cultivation profitable. From that time it has been taken up here, with increasing rapidity as large quantities of seed became available, and now there are about 150,000 acres in Ceylon alone planted to rubber, besides about 200,000 in other tropical countries. The price of rubber is at present very high indeed, and the pioneers of the cultivation have made profits at the rate of even £60 per acre per annum, but of course this cannot be expected to last.

Not only did the Botanic Gardens introduce and pioneer this cultivation, but they have also shown how best to get the rubber, how best to prepare it for the market, and many other things, so that the whole large and prosperous industry is the creation of this department of the Government.

Rubber is obtained from the trees by tapping. Spiral or herringbone cuts or more rarely large Vs are made in the tree to the height of about six feet, and the milk that runs down is collected in tins, removed to the factory, mixed with creosote and acetic acid, and clotted into sheets of rubber which are dried and exported, or better still immediately placed in the hydraulic press, and compressed into blocks about two inches thick. The wounds on the tree are reopened at the next tapping by shaving off a small slice. Lately a new method of tapping by simply cutting a large Y at the base of the tree and renewing this, is coming into favour, as it requires much less labour, and labour is none too plentiful.

ARECA-NUTS.

Along this part of the railway line, too, we come on large quantities of areca-nut palms, though of course these are everywhere common in the villagers' gardens or "jungles." In this neighbourhood they are cultivated for sale and for export to South India. The palm is a tall, slender, graceful tree, with a tuft of feathery leaves at the top, and is compared by native poets, not inelegantly, with "an arrow shot from heaven."

The nuts of this plant supply the bulk of the material of the universal "chew" of the eastern native; they are cut into slices, and mixed with a little lime—or chunam, as it is called here—and usually tobacco or other condiment or spice, to give a flavour, and then the whole is wrapped up in a leaf of the betel pepper and chewed. It colours the saliva a disgusting red, like blood, and the practice is a decidedly dirty one, the posts of every building in Ceylon being covered with white smears where the natives have wiped the lime off their fingers, and the ground covered with stains like blood from their spitting upon it. At the same time, the practice has, in an eastern country, much to recommend it, for it supplies the people with the lime which is decidedly lacking in their normal diet, and it is also said to be a preventive of dysentery. It is of late showing a tendency to disappear in favour of smoking, but unless this is accompanied by a change in diet to provide lime, the results are likely to be decidedly harmful.

From the wood of the areca palm, the native makes the pingo or yoke with which he carries things to market and

A TEA ESTATE.

(See page 53.

[*Photo by A. W. A. Plate & Co.*]

other places. This is simply a stick, about four feet long, flattened, and he carries it over one shoulder, with a burden attached to either end. When tired, he swings it round behind him, on to the other shoulder. By long practice, and by a judicious swaying of the pingo, the native is able to carry considerable loads for long periods by a method which to the unskilled man is extremely fatiguing.

CLIMBING ARECA PALMS.

TEA.

At Peradeniya the first important plantation of tea is come upon, and beyond this, especially on the way to Nuwara Eliya, there are a vast number of plantations. Tea cultivation was first seriously taken up in Ceylon, to which the plant is not native, about 1875, and spread rapidly from 1880 to about 1895; there are now about 380,000 acres of land in the island devoted to it, and it forms the principal export commodity. The average size of a tea estate is a few hundred acres, though of late the tendency is to unite estates in groups for

cheapness and convenience in working. Each is usually under a European superintendent or "planter," sometimes the proprietor of the estate, but now more usually a salaried employe of a London company, and if the estate is large enough, there may be one or more assistants. The principal planter, or chief superintendent, is usually known in Ceylon as the P.D., short for "periya durai," (pronounced "perria dorry,") the Tamil for "big master;" the assistants are each an S.D. or "sinna durai" (little master), while the pupils, to be found on many estates, are known as "creepers."

The estate is usually under the agency of some firm of agents in Colombo, which manages its shipping and export business, rice supply, &c., and also supervises the actual working of the estate by means of its V.A. or "visiting agent"—a planter of long experience, who goes over the estate at intervals, inspecting its working, estimates, accounts, &c.

The labouring force of an estate—almost the most important part of its actual working—is usually made up, not of the Sinhalese native to the island, who will not readily go out to work, but of Tamil coolies from the Madura and other districts of South India, who come to Ceylon as to a kind of El Dorado, where both men and women, to say nothing of the children, may make good wages for work which after all is by no means exhausting, though they work from 6 A.M. to 4 P.M. at a stretch. The coolies work in gangs under overseers, locally termed kanganies, by whom, as a matter of fact, they are generally recruited from their villages in India. As a rule, they return to India after a time with their savings, but a few settle in Ceylon. There is a very heavy traffic of coolies all the time on the boats sailing to Tuticorin in South India.

The rate of wages, being only 30 to 50 cents a day of Ceylon money, or 5*d.* to 8*d.* English, may seem to the newcomer mere starvation, but when one considers that at home the same people would not be able to earn more than about one-third of that, it assumes the guise of actual wealth. The coolies are housed and medically attended at the cost of the estate, and schools are usually provided for the children, so that they have nothing to complain of, and the visitor who holds up his hands in horror at the small accommodation provided must remember that this is almost palatial compared to their own homes, and that they do not like large and airy quarters.

The coolie is a very docile and obedient labourer, and gets attached to places where he is well treated. Not only so, but he gets attached to particular districts, especially to the up-country districts, where he finds, that once he is acclimatised, his health is better, and if he be tempted by more money to work for a time on a low-country place, he frequently finds

A TEA FIELD.

(See page 54.)

that he gets so much fever, that he is glad to return up-country. Of course, even though in most places up-country there are no fever-carrying mosquitoes, the coolie is in general saturated with malaria, and this will come out on him when he gets a chill or is otherwise below par; but on the other hand his chance of re-infection is very small, and with care he need hardly suffer from fever at all, whereas in many low-country estates he is continually ill from this cause, for he will not take any precaution against the bites of the mosquito. Lately an oil, giving protection against mosquitoes, has been introduced for the coolies to rub themselves with, and it may be hoped that this will have some good effect.

In its wild state the tea plant is a small tree, and there are several varieties, but in Ceylon the Assam variety, or a hybrid of it with the China, is almost exclusively cultivated, and the plant is so constantly pruned that it never grows to any height. It is planted out in long rows at four feet apart, and the new-comer will be surprised to see in what apparently inhospitable places the plant will yet thrive—on rocky land, on precipices, and on the very poorest soil.

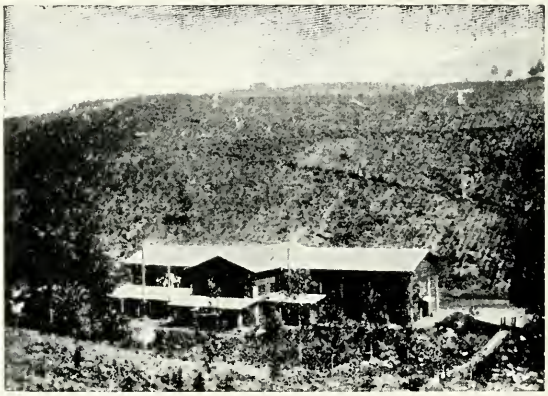
The bushes are subjected to a severe pruning every eighteen months to four years—less frequently the higher above the sea level—and every stalk is cut off, down to a height of about a foot above the ground. In this condition the fields look almost as if the bushes were dead, for not a leaf is left on them. Rapidly they recover themselves, and soon the "flushing," as it is termed, is going on more merrily than before. From the upper part, or flattish surface of the bush, there continually sprout out long, green, tender shoots, bearing young leaves. These are termed the flush, and the whole object of the cultivation is to ensure regular, frequent, and vigorous flushing. It is from the flush that the tea is obtained. The bud at the tip, and one, two or three leaves below it are nipped off by the skilful fingers of a coolie woman or child. When the bud and one leaf are taken, the plucking is termed fine, when two leaves, medium, when three, coarse. Medium

A TEA SHOOT: *a, b, c* &c., Successively Older Leaves.

plucking is perhaps the commonest course. The work is done by the women and children, working in gangs under kanganies, and they soon become very quick and expert at it. They pick off the flush with both hands, and throw it into large baskets which they carry suspended from their heads.

Fine plucking produces the various teas known as "pekoes," which in the days when tea came from China were supposed to come from a special variety of the plant. The older leaves give souchong and congou teas. Pekoes composed only of the buds or tips are known as "flowery," those containing also the first young leaf as "orange" pekoes.

At 4 p.m. the coolies bring in their day's plucking to the factory which is usually a large and well equipped building,



A TEA FACTORY

containing the most modern machinery, and worked by steam or water power. The "leaf" is examined and weighed and the amount plucked by each cooly recorded, the wage depending partly on the amount plucked.

After this, the leaf is taken to the upper floor of the factory, and thinly spread out on light canvas (jute hessian) shelves, known as tats, to wither. In good weather it becomes limp and flaccid in about 18 hours, but in wet weather artificial heat is employed, and a current of warm dry air is drawn through the withering loft. The properly withered leaf is next thrown down through shoots into the rollers or rolling machines on the ground floor of the factory.

A roller consists essentially of a table with a central depression to hold the leaf, and a hopper above it, the two moving over one another with an eccentric motion. Pressure to any required extent can be put upon the mass of leaf that is being

PLUCKING TEA.

(See page 56.)

[*Photo by A. W. A. Plate & Co.*]

PLATE XVI.

rolled, and at the end of an hour or so the door in the bottom of the table is opened, and the "roll" falls out, as a lump of more or less crumpled and twisted leaves, that hang together in masses. These are then broken up in a machine called a "roll breaker," to which is usually attached a sifter that separates the coarser leaf from the finer.

After this the leaf is piled in drawers or on mats to ferment or oxidize, with free access of air. This process is omitted in the manufacture of green tea. In a couple of hours or so, depending on the weather, the leaf assumes a coppery colour, and gives out a peculiar smell. Experience is required to determine the exact point at which to check the fermentation and place it in the firing or drying machines. There are many types of these machines, but all act by passing a current of hot dry air through the damp fermented leaf until it is

FIRING MACHINES.

dry and brittle, when it is removed, sifted into grades by a machine composed of a series of moving sieves of different sizes of mesh, and finally bulked (*i.e.*, the whole mass of each grade made on one or more days is thoroughly mixed together, so as to secure as great uniformity of quality as possible), packed in lead-lined boxes of about 100 lbs., soldered up, labelled with the name of the estate, and despatched to the port for shipment.

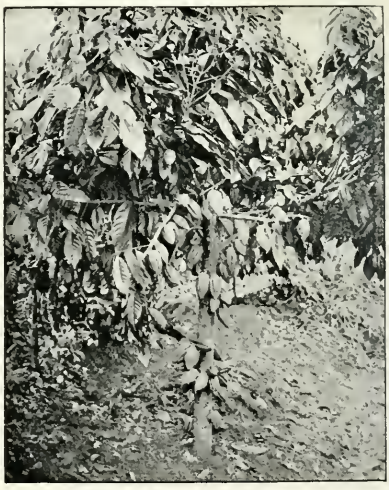
The grades of tea usually prepared in Ceylon are known (in order of quality and value) as orange-pekoe, pekoe, pekoe-souchong, souchong, congou and dust.

Green tea, made in the same general way as black, but withered by means of steaming, and prepared without fermentation, is graded as young hyson, hyson (1 and 2), gunpowder, and dust.

While until the last few years tea was usually grown in large open fields, and presented much the look of the gooseberry orchards of the valley of the Clyde, it is nowadays nearly always to some extent shaded with Grevilleas, Albizzias, or other trees, and is also very commonly cultivated with green manures, *i.e.* other plants, usually belonging to the leguminous family (that of the beans, peas, clover, &c.) are grown amongst it, and presently ploughed in, to improve the quality of the soil by providing it with more decaying organic matter. The leguminous plants are generally chosen for this, because they have the power of absorbing nitrogen from the air—the most valuable and expensive constituent of an ordinary manure—and thus the soil is enriched in nitrogen at a small cost.

CACAO.

Along the upward journey from Rambukkana to Kadugannawa, and beyond the latter place, and most especially from Kandy to Matale along the branch line, may be seen plantations of cocoa or chocolate, better perhaps spelt cacao as there happen to be so many other things with similar names, and to this day the cacao tree is confused with the coconut palm. Ceylon now has about 35,000 acres under this crop, mostly in the Matale and Badulla districts, and Ceylon cacaos fetch about the highest prices upon the European market.

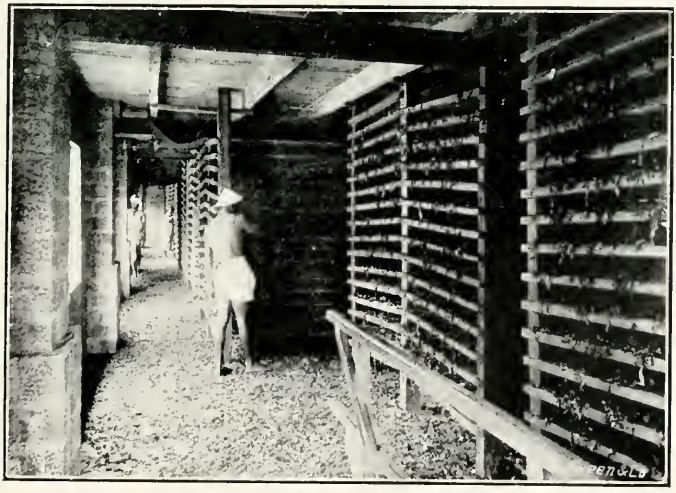


CACAO IN FRUIT.

The plant itself (*Theobroma Cacao*—the food of the gods) is a graceful little tree or shrub about 12 to 16 feet high, much branched and spreading out, and is grown under the shade of other trees, as it will not stand exposure to sun or wind. The shade trees used to be almost exclusively dadap (Erythrina), but now it is by no means uncommon to use rubber.

The plant flowers, not on the twigs, as it would do in Europe, but in the way so very common in the tropics, on the

SORTING LEAF IN THE FIELD.



A WITHERING LOFT.

(See page 57.)

old mature wood, and the flowers are followed by large pink, yellow, or green fruits, with rather fleshy rind, and containing about 30 bean-like seeds. The fruits are picked and cut open, the seeds piled in heaps under plantain leaves to ferment the mucilage that coats them, then washed and spread out in the sun for a few hours a day for several days to dry them. When dry they are despatched to Europe, but of late a factory

DRYING CACAO.

for the manufacture of cocoa and chocolate has been opened in Ceylon by Mr. Barber at Ukuwela.

CARDAMOMS.

This crop is not to be seen along the railway. Though at present fifth in importance among the exports due to the planting industry, this spice is still but little known in Europe or America. It is chiefly used in India for cooking, confectionery, and masticating, but is coming steadily into use elsewhere, and deserves to be more widely known. About 10,000 acres, chiefly in the mountain districts north-east of Kandy, at an elevation of about 3,000 to 4,000 feet, are now devoted to this spice. The plant itself (*Elettaria Cardamomum*) belongs to the ginger family, and is not unlike ginger in

appearance, but very much larger, growing to a height of 10 feet. It is cultivated in clumps under the shade of the trees of the forest, which has its undergrowth thinned out to make room for it. The flowers are borne on stalks rising from the ground, and succeeded by little capsule fruits, which are cut off with scissors, spread out in trays or on barbecues (drying grounds), and slowly dried and bleached. The essential part of the spice is the seed contained in the capsules, but the latter are always dried with the seeds, and so far as possible without splitting. If the seed were sold without the capsules, they could be easily adulterated with other similar and less valuable seeds.

PICKING CARDAMOMS.

The export of cardamoms in 1903 was 909,418 lbs. but has since decreased.

UP-COUNTRY FOREST.

Up to Nanuoya nearly all the forest has been cleared from the hills in the earlier days of the planting industry, and one now sees nothing but the merest fragments. Fortunately in 1875 Sir Joseph Hooker got the Colonial Office to enact that no further land should be sold in Ceylon above the elevation of 5,000 feet, and as cinchona and tea were only just coming in at that time, and coffee would not succeed at high levels the great bulk of the high-lands of Ceylon remain untouched. Beyond Nanuoya, both on the lines to Bandarawela and to Nuwara Eliya, the forest may be seen to advantage, more especially on the former. By this means the water supply to the lower levels is conserved as much as possible, for of course the rain does not instantly drain off to the rivers

ROLLING AND BREAKING TEA.

TEA SIFTING MACHINES.

(See page 57.)

from ground covered with forest, as it does from open tea land, but drains gradually and evenly into them.

The trees of this forest are surprisingly low in stature, and much gnarled and twisted, and all grow to much about the same height. Their low stature is perhaps due to the violent wind that sweeps over the hills in the southwest monsoon. Under the trees are many shrubby plants, more especially many species of that known to the Sinhalese as nelu. Of this plant, which may usually be recognised by its growing in an almost unbroken mass through large areas of forest, and to a height of 5 to 15 feet, and by its large oval leaves, there is rarely more than one species in one region, though there are some 30 or more species altogether. They grow up from the seed, without flowering, for 6 to 16 years, and then, all at once, a whole patch of a species will burst into simultaneous flower, producing an extremely pretty effect, and attracting thousands of bees, who are soon followed by numerous natives, on honey-seeking bent. When the seeds are ripe, the plants all die down, and the jungle is full of dead sticks. Numerous jungle fowl come up to feed upon the seeds. Yet another very common undergrowth is the dwarf bamboo, which also occurs in unbroken masses over large areas. Orchids, perched upon the trees, are very common, but there are but few of striking or gaudy effect. Tree ferns are frequent.

TREE FERNS.

UP-COUNTRY PATANAS.

Towards Nuwara Eliya, or near Ambewela, according to which line of rail is followed, we come upon the first well marked examples of what are known in Ceylon as patanas—open grassy plains, usually (at high elevations) sprinkled with Rhododendron trees. On the western side of the main range these patanas are of limited extent, and are surrounded by forest. The boundary between the forest and the patana

is remarkably sharp, large trees growing right up to the very edge of the forest, so that one may pass in two strides from one kind of country to the other. Passing eastwards along the railway to Bandarawela, so soon as we have crossed the main ridge by the tunnel, the area of patana begins to increase rapidly, while that of jungle decreases, and by the time that we have got about as far as Haputale, the area of the forest is very limited indeed, being reduced to little patches in the vast extent of patana.

Many theories have been put forward to account for this striking feature in an otherwise forest clad country. The one with most to be said for it supposes that the patanas began as small patches, and have been gradually extended to their present enormous extent by the continual firing of them which is done by the graziers, for cattle will not eat the coarse mature grass which grows upon them, but will only eat the young and tender shoots that spring up after a fire. Every year the graziers burn the patanas, and every year in consequence their soil becomes more thin and poor.

Among the grass may be seen many flowers, and at certain seasons the patanas are comparatively gay with blossom. Among the plants that are to be found at high levels are many northern ones, such as gentians, buttercups and sundews.

The patanas up to about 5,000 feet are largely covered with *mana* grass, a tall coarse grass with a scent like citronella. The latter grass indeed is simply a variety of *mana*.

CINNAMON.

In the southeastern suburbs of Colombo lie the old "cinnamon gardens" and all the way down the southwest coast are large or small plantations of cinnamon, which is one of the most important minor cultivations of the island, and though not very remunerative, is still extending its area. Cinnamon is the oldest export—of vegetable produce—from Ceylon, and was practically the only export until about 1840, except elephants, &c. Until the Government monopoly was given up (p. 39), the trade however was but small, and the price high. Since that time it has steadily increased.

In olden times the spice was got from the bark of jungle trees, but now the plant is coppiced down like osiers in Europe, and the long twigs that are sent up have their bark peeled off, and rolled up into quills, one piece inside another, while an inferior quality is sold as chips.

MANGROVES, AND SHORE PLANTS.

Along the coast line south of Colombo, the railway mainly passes through plantations of coconut palms, but

NUWARA ELIYA, SHOWING PATCHES OF PATANA.
[*Photo by A. W. A. Plate & Co.*]

(See page 62.)

especially in the more southern part, along the lagoons south of Ambalangoda, there are patches of mangrove vegetation. This presents a very characteristic appearance. It occupies only the large lagoons, the banks of rivers, and other places within reach of the tides, but free of any surf.

The characteristic appearance is of numerous shrubs looking not unlike laurels, but with many roots springing from the lower part of their stems and bearing them up as if on stilts. In many cases the seeds sprout while yet within the fruit, so that one finds large seedlings hanging upon the trees; they only drop off when perhaps a foot or more long, and then fall straight downwards, and float in this position in the water. In this way their chance of sticking into a hole is much greater. The tide usually leaves the mangroves almost bare during some part of the day.

Among the taller shrubs grow other plants, among them for instance very commonly a blue Acanthus, which with its holly like leaves forms a very pretty object.

Along the sandy beaches of the southwest is a characteristic vegetation of small herbs, which is much the same on every tropical coast. Among the most striking plants are the *Ipomaea biloba*, a pink-purple flowered convolvulus with two-lobed leaves like a goat's foot, *Spinifex*, a grass with a curious prickly fruit head with long spikes, that falls off bodily and rolls along before the wind, and many others.

CITRONELLA.

In the country north and east of Galle and Weligama, a large area is devoted to the cultivation of citronella grass, which is a cultivated variety of the mana grass that is so common on the patanas and the waste grass lands in other parts of the country. The grass grows in large tussocks about 4 feet high. It is cut every three months or so, and placed in a large still, through which steam is passed, and the resulting oil is condensed in a worm in cold water in the ordinary way. The oil is largely used in Europe and America for making the cheaper scented soaps, and having of late been rather over-produced in Ceylon, the price is low, and the cultivation not specially remunerative. Lemongrass, a nearly related grass, with a somewhat more lemon-like smell, is also cultivated in places.

DRY COUNTRY FOREST AND CHENA.

Passing along the northern railway, after leaving Kurunegala, the line runs mainly through low chena scrub, composed

of low prickly bushes, but every now and then a piece of original forest is passed. There is little in this to tell the casual visitor that he is not in a wet zone forest, excepting the greater openness of the forest, and the thinner undergrowth. In places some magnificent trees of kumbuk or other kinds may be seen, and it is in this forest that most of the valuable timber trees of Ceylon—the ebony, the halmilla, the satinwood, and the rest—are to be found.

PALMYRA PALMS.

In the extreme north of Ceylon we come upon an entirely new type of vegetation, giving an altogether different look to the scenery. This is the great stretches of country in which the palmyra palm takes the place of the coconut palm of the south. It is a straight stemmed palm, with a stiff crown of fan shaped leaves, and large reddish-purple or brownish fruits, and is the great staple of cultivation of the Jaffna country, though even there the coconut is a good deal cultivated. The uses of this palm are many, and an old Tamil song in its praise enumerates no less than 801. Just as is the case with the coconut, the natives there use it for every conceivable purpose, making fibre, mats, thatch, buckets, &c., from the leaves, using the stems for rafters and other parts of houses, utensils, &c., and eating the fruits.

GARDEN CULTIVATION IN THE JAFFNA COUNTRY.

Unlike the Sinhalese, the northern Tamils, in their poor soil and dry country, make good and careful agriculturists, and the whole of the far northern peninsula of Ceylon is cultivated like a garden, with every possible kind of crop grown in straight rows, as in Europe, carefully watered and otherwise tended. Tobacco, recognisable by its very large leaves on plants about 2 feet high, is largely cultivated, but there is no export to Europe, the product being too coarsely cured. There is, however, a considerable trade with southern India.

THE COMMON CULTIVATED OR WILD PLANTS OF THE ISLAND.

Most of those of great importance have been dealt with above, but there are a few about which a few words must be said, and it will be convenient to arrange them, both those already described, and those which have not been mentioned in alphabetical order.

GIANT BAMBOOS AT PERADENIYA. (*See page 65.*)

[*Photo by Messrs. Skeen & Co.*]

Acalypha. A very common ornamental shrub, recognisable by its thin leaves with blotches of yellow or brown.

Amherstia. Perhaps the most beautiful tree in the tropics, common in the Peradeniya gardens. Very difficult to propagate. It flowers all the year round, and the splendid pink flowers have a superficial resemblance to orchids. The young leaves hang down in a bunch in a curious way.

Areca-nut palm. See page 52.

Bamboo. Several kinds are grown in Ceylon, but the commonest are the yellow stemmed bamboo, about 40 feet high, and the giant bamboo, of which there are many magnificent clumps at Peradeniya. Bamboos are used for scaffolding, for flower pots, mats, gutters and innumerable other uses, but Ceylon is not so markedly a bamboo country as Java, Assam, or Japan. (See plate XX.)

Bo. The Indian pipul, the sacred tree of the Buddhists (Gautama is said to have attained his Buddha-hood under one, and there is a very famous old specimen at Anuradhapura) and Hindus. Recognisable by the unique shape of the leaves, which taper in hollow curves to a point 2-3 inches long.

Breadfruit. A native of the Pacific islands, cultivated along the S.W. coast and elsewhere. The fruit, fried, is good eating.

Cacao. See page 58.

Camphor. Now beginning to be cultivated up-country, and recognisable by the smell of the crushed leaves. The twigs are cut and distilled with steam, when the camphor passes over.

Cardamoms. See page 59.

Castor-oil. A common weed, and grown in nearly every native garden, for the oil obtained by crushing or boiling the seeds.

Ceara rubber. The first rubber cultivated in Ceylon, but now largely abandoned in favour of Para rubber. It grows in dry districts, and up to 4000 feet.

Cinnamon. A native of southern Ceylon, cultivated along the S. W. coast. See page 62.

Coconut. See page 47.

Coffee. From 1835 to 1875 the mainstay of planting in Ceylon, but now almost extinct, except in native gardens about Bandarawela &c.

Cotton. A poor quality is grown by natives all over the dry country, but lately cotton of good quality (Sea Island) is being taken up.

Cotton-tree. (Bombax malabaricum). Perhaps the most striking tree in S. W. Ceylon during January and February. The leaves fall completely at the end of December, thus

making this tall tree very conspicuous, and in January there appear a vast number of red flowers as big as tulips, followed in March by pods which when they burst scatter cotton broadcast.

Croton. What are known by this name are really forms of Codiaeum. They are favourite garden shrubs, occurring in great variety of variegated and variously shaped leaves.

Dadap. The commonest shade tree in cacao, and sometimes among tea, with splendid red flowers, and leaves with 3 leaflets.

Exacum. One of the most beautiful native flowers; the up-country (patana) form is now common in Europe. It grows about a foot high, and produces a bunch of lovely azure-blue flowers.

Furcrea. The Mauritius hemp, planted along the rail side and elsewhere, but not used here for fibre. Recognisable by the dense rosette of long thick sword like leaves at the base.

Grevillea. The Australian Silky-oak. Introduced here years ago, and now planted in millions in the tea country, as shade and for the timber. Leaves much divided featherwise.

Jak. Cultivated in every native garden up to about 4000 feet. The large irregular yellow fruits are produced, not on the twigs, but on the old stems—a not uncommon phenomenon in the tropics—and grow to a very large size, sometimes two feet in length, and 40 lbs. in weight.

Kitul. This palm is commonly cultivated in the Kandyan country, *e. g.* up the Kadugannawa pass. The leaves are twice branched, and are spread out over the top 10-20 feet of the tree, so that it does not look like a "palm." Toddy is obtained from the stalks of the flowers, just as in the coconut (page 47), and a fibre, largely used in Europe for making stiff brushes, is got from the bases of the leaves.

Lagerstroemia. This tree, with its splendid red-pink flowers, is very conspicuous along the railway to Kandy, especially between Rambukkana and Peradeniya Junction, from March to July.

Lantana. This is one of the commonest weeds in Ceylon, but is really a native of Mexico, as are so many of the common roadside plants here. Ceylon was once forest covered, so that it had no weeds capable of spreading on the cleared ground, and the American weeds from open country got a good chance to spread, so that now there are scores of them among the commonest plants of Ceylon. The Lantana, which is really a very pretty plant and popular in European hothouses, is said to have been introduced by the wife of Sir Hudson Lowe about 1828 and rapidly spread through the island, covering hundreds of square miles of waste land, from

which it is now being ousted by the sunflower, a more recent arrival from Mexico. It is recognisable by its prickly stems, and bunches, about $1\frac{1}{2}$ inches across, of small orange flowers.

Love-grass. The commonest grass in open turf; its name is supposed to be due to the partiality displayed by its fruits for clothing. They are barbed, and stick into the clothes if one walk through the grass.

Loranthus. Common here, growing parasitically like mistletoe.

Mana-grass. Covers the patanas, and waste grass lands. The leaves have a lemon-like smell, really that of citronella oil. A cultivated variety of the grass yields the citronella oil of commerce (page 63).

Mango. Cultivated in nearly every garden, yet rarely does one find a good mango, partly because the climate is too damp, partly because the natives will not take the trouble to bud or graft. The fruits are lop-sided, green or yellow or pink, usually several inches long.

Mangroves. These occupy large areas of the banks of lagoons and backwaters on the coast. They are at once recognisable by the numerous roots that project downwards from their branches into the mud, and often by the fact that their seeds germinate on the plant, so that quite large young plants may be seen dangling (page 62).

Mikania. The last new weed, which has lately begun to spread rapidly, and is now common from Kandy down the railway as far at any rate as Polgahawela. It scrambles over the vegetation to a considerable height, and has dingy white flowers.

Mussaenda. Common along the Kandy railway, and noticeable for the large white leaves among the flowers.

Orange, Lime, &c. Everywhere cultivated in ones and twos. The best orange here is in general the mandarin, recognisable by the nipple at one end, but the Cotta orange is very good, though a trifle papery. Oranges here remain green, and do not turn yellow.

Paddy or Rice. See page 43 and plate XI.

Palmyra palm. See page 64.

Papaw. Introduced by the Portuguese, and one of the commonest trees in the island. The large melon-like fruits are very good eating, especially for early tea. The leaves and the unripe fruits contain a digestive ferment, which forms the basis of many of the digestive salts used in Europe. If meat be buried with a leaf wrapped round it, it soon becomes tender by partial digestion.

Para rubber. See page 50.

Pepper. In former times an important crop in Ceylon, but now only cultivated on a small scale, though it is increasing. The berries if dried as they are form black pepper, if skinned white pepper.

Pithecolobium. *P. Saman*, often called *Inga Saman*, is the most common tree planted for shade by the sides of the roads.

Plantain. See page 50.

Rhododendron. Very common on the patanas at high levels *e.g.* about Nuwara Eliya, and one of the finest of all Rhododendrons when covered with the great masses of scarlet flowers. Grows into a tree as much as 18-20 feet in height.

Sensitive Plant. A common object of interest in European greenhouses, but here one of the commonest and most troublesome weeds. By careful poking of the end leaflets, the leaflets may be made to close up pair by pair from top to bottom, and often the leaf will subsequently bend down, or it may be made to do this by gently stroking it under the joint on the stem without touching the leaflets.

Sapu. Very common, but not a native tree. The sweetly scented flowers are largely used as offerings in Buddhist temples.

Shoe Flower. One of the handsomest flowering shrubs in gardens. The natives use the large red funnel-shaped flowers for staining fruit &c., in cooking, and for cleaning shoes.

Silk-Cotton Tree. Cultivated on a small scale round most native dwellings in the low-country, and at once to be recognised by its horizontally spreading branches. The cotton obtained from the pods is exported to Europe under the name kapok, and is also used locally for stuffing pillows &c.

Sunflower. A Mexican weed, now perhaps the commonest weed in Ceylon, and very conspicuous from its large yellow flowers.

Talipot. The largest of palms. It grows without flowering for 40-90 years, and then comes out with an enormous mass of whitish flowers at the top, in a plume perhaps 40 feet high, and then dies as soon as the fruits are ripe. The leaves are used, in small pieces, as umbrellas, and strips of them form the "olas" on which the old native scriptures and other books are written. (Plate XXI).

Tamarind. Common in the north, where splendid trees may be seen in almost every village. The fruit is edible, but somewhat aperient.

Tea. See page 53.

Temple Tree. One or two may be seen near every temple in Ceylon. The sweetly scented yellowish flowers are used as offerings. The tree is often leafless.

TALIPOT IN FLOWER. (See page 68.)

[*Photo by Messrs. Skeen & Co.*]

Tree Ferns. Common in the jungles, especially near water courses, at high elevations, and perhaps the most beautiful of all the tree ferns. A fine field of them may be seen about three miles from Horton Plains Resthouse on the path to Haldummulla. (Fig. on p. 61).

Chapter V.

THE FORESTS.

EXCEPT in the dry zone, these are most conspicuous by their absence, though with the proper conservancy that is now adopted, it is to be hoped that the reckless destruction that characterised former years is at an end.

Previous to the British occupation there were large areas of "high" or original forest in Ceylon. There was a belt

A FOREST BRIDGE.

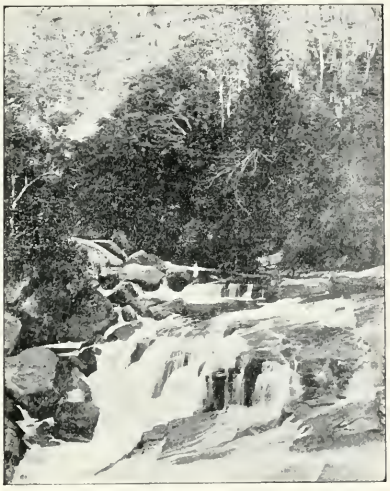
about 30 miles wide dividing the Kandyan country from the low-country, and this was kept up by the Kandyan kings as affording perhaps the best means of defence of their country against invaders. Until about 1830 or 1840 the population was too small to make the terrible inroads upon the forest that it has since made, by the agency of chena cultivation (p. 37). It is true that in early times the dry country to

VIEW IN THE FOREST NEAR RATNAPURA. (*See page 70.*)

PLATE XXII.

the north and east was comparatively thickly populated, but there must have been some patches of forest, at any rate, for the country after its abandonment became once again covered with a thick and varied forest, which would not have been possible had all the original forest been cleared.

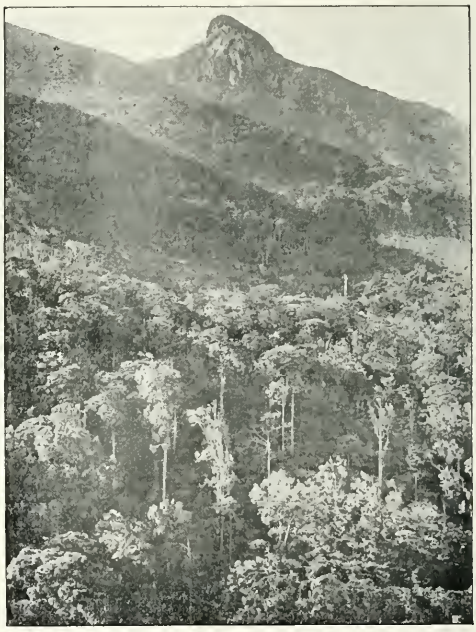
At about the same period, say 1830, the two principal causes of the great clearance of the forests began to be conspicuously operative, viz. coffee planting and chena cultivation. The former was responsible for enormous clearances in the hills up to about 5000 feet, while the latter cleared hundreds and even thousands of square miles both in the low-country and the hills. During the coffee period, up to about 1870, these two agencies had practically cleared away all forest growth from 1000 to 5000 feet, and at about that time tea and cinchona began to come in proving to be cultivable at even higher elevations than coffee. Had it not been for the action of Sir Joseph Hooker, at that time Director of Kew Gardens, it is by no means unlikely that Ceylon would have been cleared to the summits of its highest mountains, but about 1875 an arrangement was sanctioned by the Secretary of State, according to which no land was to be sold above the limit of 5000 feet, and this has since been rigidly adhered to, except as regards the sale of building lots in Nuwara Eliya &c., resulting in the preservation of some 90,000 acres of original forest at high levels, and the retaining of the very beautiful natural features of the country, which, when once lost, can never be regained, for the vegetation of Australian trees in no way replaces the much more graceful and prettily coloured trees of the natural forest, to say nothing of the loss of most of the interesting undergrowth.



A STREAM IN THE FOREST.

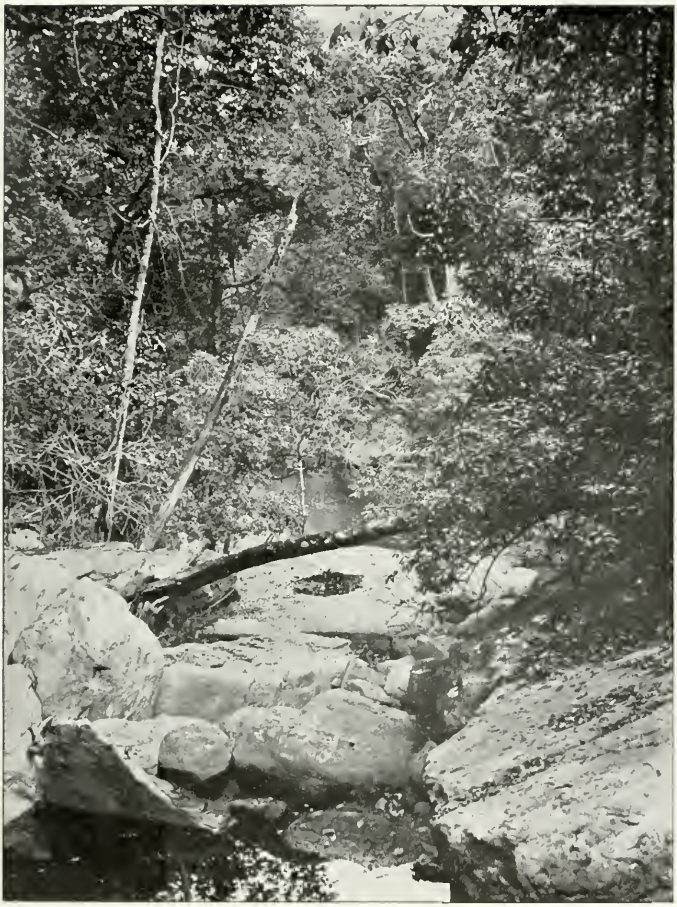
Up to this period there had been no proper conservancy of the forests, and timber was sold to anyone who liked to take out a permit, the result being the loss to the Government of a valuable source of revenue, for the taker of a permit

naturally got all the timber that he could without paying any more royalty than he could help. In 1882 Mr. Vincent was borrowed from the Forest Department of India to report upon the forests of Ceylon, and he drew up a very valuable report, in which he pointed out that the abuse of the permit system, together with unrestricted chena, and reckless clearing of the mountains for coffee, tea, and cinchona, had already resulted in the loss to the island of nearly all its valuable forests, for even in the comparatively small areas left in original forest most of the valuable trees had been removed by permit holders and other thieves. Chena he stigmatised and rightly, as the worst offender, for thousands of square miles of what had once been good forest were simply covered with the useless scrub that follows chena.



MOUNTAIN FOREST.

Conservancy was obviously an urgent necessity. A Forest Ordinance was passed in 1885, for the purpose of bringing matters into better trim, and in 1887 a definite Forest Department was formed, about 30 years too late, it is true, but none the less in time to save the last wrecks of what were once the fine natural forests of Ceylon. Under this department a large area of forest country has been proclaimed "reserve forest" and protected from the depredations of chena cultivators, timber and firewood supply has been taken in hand, and of late the railway has been supplied with large quantities of sleepers. The department has met with a good deal of friction in its working, owing to the kind of dual control—by the chief Conservator, and by the Government Agents—that has had



A FOREST GLEN.

to be exercised, but at last a good working arrangement appears to have been arrived at, and it may be hoped that matters will work smoothly and well in the future. The actual forests themselves are described in Chapter IV (Botany &c., p. 36).

Chapter VI.

IRRIGATION.

THE casual traveller in the wet southwestern districts of Ceylon would hardly think that irrigation was necessary, but rice is the national crop and must in any case be irrigated, while in the dry zones (see Chap. II) irrigation is almost a necessity for any crop unless one only grown in the rainy season.

The whole of the north and east, which were first settled and cultivated, is strewn with irrigation works—the ruins of ancient tanks or reservoirs—on a larger scale than anything recently constructed or restored. The system adopted in very early times—for the first tank was constructed in 504 B.C.—was to construct earthen bunds or dams across the beds of the streams to hold up and retain a portion of the flow during the wet season, allowing the surplus to run over a spill or waste weir, constructed of masonry. This surplus was usually conducted into other tanks lower down the valley, so that no water was wasted. From the tank, on either side, sluices fed the water channels which ran along the sides of the valley at a much flatter slope than the river running down the centre of the valley, and thus a continually widening area of land was obtained for irrigation, the waste water passing into the river in the middle, and being caught in the next tank together with the overflow from the first one. As it flowed downwards this water was very commonly diverted by dams, and taken to water some of the lower lying lands.

From many of the larger tanks, *e.g.* Kalawewa, the streams were of great size, and as they flowed along the sides of the main valley, they crossed the heads of numerous minor valleys, and some of their water was if necessary diverted to fill smaller tanks in these valleys. This system may be seen in operation at the present day along the Yodi-ela, the great canal that leaves the north side of Kalawewa tank.

The bunds being made of earthwork could not of course be readily put across permanent streams of any magnitude, and Ceylon contains but few irrigation works of this kind, though there are a few ruined ones.

In this way a perfect system of irrigation was formed, and at one time almost the whole of northern and eastern Ceylon was covered with hundreds, even thousands, of tanks, feeding the paddy fields beneath them.

With the Tamil invasions these went, whether slowly or rapidly we do not know, into disrepair. The ancient spills are very narrow, and it is quite possible that they were too narrow to carry off all the water during heavy rains, without

RICE FIELDS NEAR KANDY.

assistance from the great side canals which like the Yodi-ela carried water to minor tanks. If this was so, of course as soon as the country became so far disorganised that the tank guardians left their posts, the upper tanks would fill and burst, and the rush of water thus sent down the valley would burst those below.

Only in comparatively recent times has any attempt been made to restore some of the tanks to their ancient usefulness.

and as yet most of this once populous country lies under a thick covering of forest, and is decidedly malarious and unhealthy. The first large tank to be restored was Kanthalai near Trincomalee, in 1869. Though the head of water held up is only 25 feet, while in ancient times it was 50 feet, the tank now waters large tracts of fertile land. Other large tanks have been restored in the Trincomalee, Batticaloa, and Hambantota districts. In 1886 Kalawewa in the North Central Province was restored, and a masonry spill built of 600 feet long. The area of water is 4,425 acres, and the head depth at the sluice 22 feet. Other large tanks are the Giant's Tank near Mannar (4,425 acres), Minneriya, one of the most beautiful sheets of water that can be imagined (4,500 acres), Nuwara Wewa near Anuradhapura (2,900 acres) and Nachchiyaduwa near Anuradhapura (3,920 acres.)

Irrigation is of course extensively pursued in the wet southern country but on a comparatively small scale, though elas, or irrigation streams, are carried for very long distances over very rough mountain country to bring the water of the permanent mountain streams down to the paddy fields. Some particularly good examples of such work can be seen in the Uva plateau country between Hakgala and Badulla.

PART II.—HISTORY, PEOPLE, ARCHAEOLOGY, &c.

Chapter VII.

HISTORY.

UNLIKE many oriental countries, of which there is little or no written history, Ceylon possesses a long historic epic poem, the Mahawansa, written in Pali, the sacred language of the Buddhist priests, and there are also other historical poems and documents.

The Mahawansa, being more or less figurative, was difficult to understand until about 1826 Turnour found the key to it in the running commentary or tika, which contains a literal version, and supplies many illustrations. Written by different authors at different times, the great poem covers the period from about 543 B. C. to 1758 A. D. or almost the entire history of native rule in Ceylon, and by its means one can trace dynasties with over 160 kings, beginning with Wijaya, the first Sinhalese monarch; though it must be admitted that the record of their doings is in general both dull and uninteresting.

It is probable that the earliest inhabitants of the island of whom we have any knowledge were the ancestors of the present Veddahs—a small tribe of huntsmen with the bow and arrow still surviving in some of the eastern jungles. The brothers Sarasin having recently found palæolithic stone implements buried in some of their caves, it would seem probable that these men must have been in the island for a vast length of time. The early inhabitants found here by the Sinhalese were called by their conquerors the Yakkhas or Demons, and the Nagas or Snakes, and their method of barter seems to have resembled that of the Veddahs of the present day.

The Sinhalese period begins with the more or less fabulous landing of Wijaya about 543 B. C., with a small troop of followers, but it is probable that this was antedated to synchronise with the "parinibbana" of Buddha. The current legend in Ceylon is that he came from Bengal, and this is

supported by the similarity of the Sinhalese and Bengali languages, but fairly good evidence is also being brought forward to show that he came from the Bombay side of India, and of course the Indian populations themselves have moved about a good deal in the course of time. The Sinhalese language on the whole is an Aryan tongue, whereas the Tamil and Malayalam languages of South India are Dravidian. It would seem probable therefore, that the Sinhalese at any rate came from a considerable distance.

Where they landed is also in some doubt, but fairly good evidence can be brought forward to show that it was near Puttalam on the northwest coast. The later Sinhalese kings (even the last king of Kandy made the attempt) used to tie on a royal sword at Puttalam. Wijaya, the leader of the Sinhalese, married a daughter of one of the local chiefs, and with her aid mastered the island. Later on he deserted her for a Tamil princess of southern India. He scattered his followers over a large part of the island and started agriculture here, while several of his adherents also formed petty kingdoms.

A little later Ceylon was divided into three divisions usually employed in the native histories, viz. the Ruhunu Rata from Trincomalie to Kalutara south of the Mahaweli and Kalu-gangas and below the mountains; the Maya Rata from the Kaluganga to the Deduru-Oya near Chilaw, and including the mountains; and the Raja Rata, the remainder of the island to the north. In those days the Raja Rata was by far the most important, whereas nowadays the bulk of the population and agriculture is in the Maya Rata.

The patriarchal village system which still exists in most of the island was also introduced about the same time. In the greater part of Ceylon a village is less a little street of houses than a division of country, under a headman who is responsible to higher officials. It corresponds more to an English parish.

About 504 B. C. the successor of Wijaya opened the first tank or irrigation-lake near Anuradhapura, and from that time onwards the construction of these tanks, and the consequent opening up of more and more country for the cultivation of rice was an object of great solicitude to the more capable kings.

At the beginning of the third century B. C. Ceylon was converted to Buddhism by the preaching of Mahinda, the son of the great Buddhist emperor Asoka, who reached the island in 307, being fabled to have descended upon Mihintale. In 288 B. C. a branch of the sacred Bo-tree of North India, under which Gautama Buddha had attained his Buddha-hood, was

brought with great pomp to Anuradhapura, and there planted; it survives to this day, and is almost the oldest tree of which we have any historical record, though by no means the oldest tree in existence.

Soon after this the erection of dagobas began all over the island. These are the curious bell-shaped solid constructions, surmounted by a kind of spike, which may be seen near every temple. There is a very good specimen almost opposite to the temple of the tooth at Kandy. Each dagoba was supposed to contain a relic of Buddha or something of the sort. Monasteries were also erected in great numbers for the very numerous people who preferred the monk's life of meditation and alms-seeking to a productive life of industry.

The history of ancient Ceylon is largely a history of Malabar or Tamil invasions, conquests, and usurpations, and these began about 237 B. C., in which year two youths of position in the cavalry and the navy revolted, and conquered the island by aid of the Tamil mercenaries already employed in large numbers by the unwarlike Sinhalese kings. They remained in power for more than 20 years, and then followed a short period of Sinhalese monarchy, ended by the accession of Elala, a Tanjore Tamil who administered the country with great success and impartial justice.

Elala after a reign of 40 years was defeated and slain by Dutugemunu, one of the great Sinhalese heroes of Ceylon. So struck was he with Elala's bravery that he erected a monument to him on the spot where he fell and for centuries passers by in vehicles used to alight and walk past this.

Eager to display his zeal for the ancient religion Dutugemunu built the Ruwanweli Dagoba at Anuradhapura, still one of the great places of pilgrimage. He also built the great monastery known as the Brazen Palace (from being roofed with brass). It was nine stories high and splendidly ornamented within and without. At present nothing remains of it but a forest of stone pillars, 1,600 in number.

After the death of Dutugemunu there is very little of interest in the history but Malabar or Tamil invasions, and the construction of tanks. The latter went on for centuries, especially under Buddhist influence. The number of priests became so great that the kings could not support them with food, and took to giving them grants of land, often or usually in waste districts where as a rule they also made a tank to water them. Thus Minneriya, one of the largest and finest tanks in Ceylon, was built for and conferred upon the Jetawanarama Dagoba at Anuradhapura.

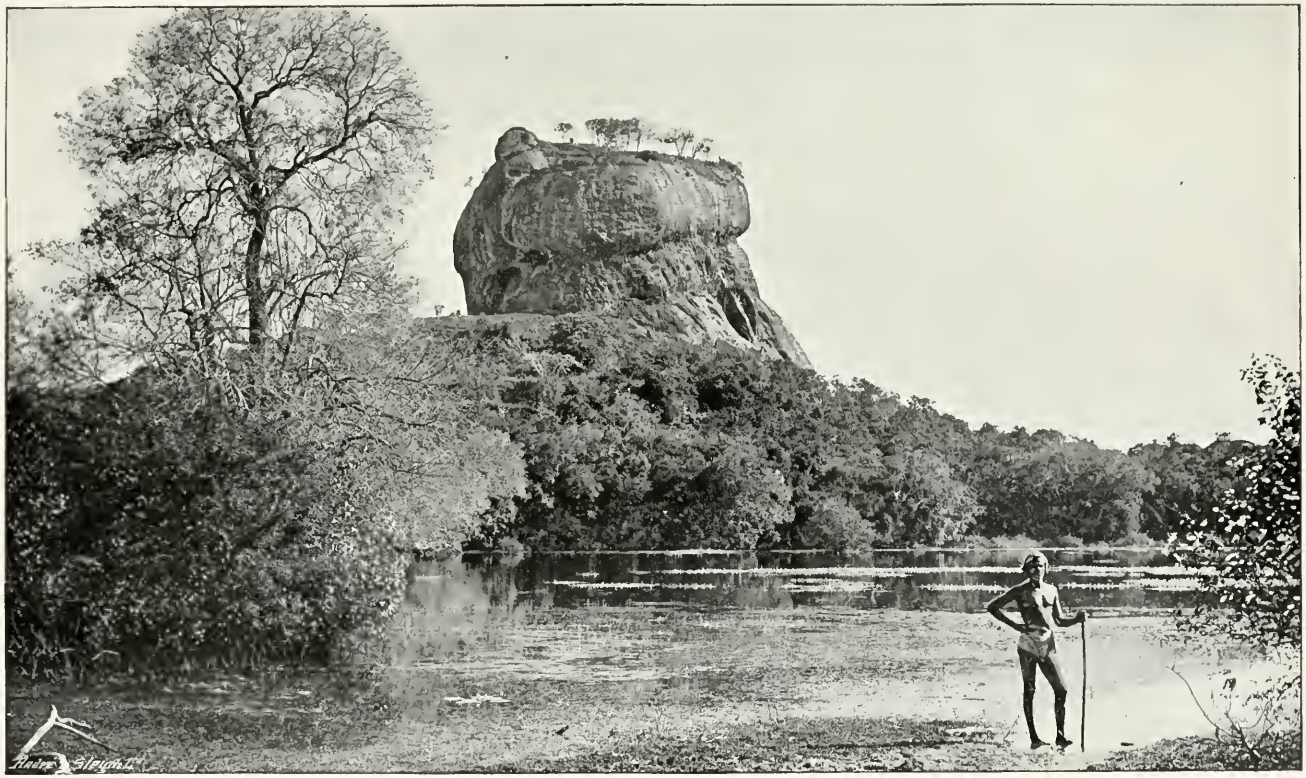
The enormous work of building the great bunds to hold up the waters of these tanks was largely performed by forced

labour, the Yakkhas or aborigines being compelled to work at bund building, brick making for dagobas and other things. The process of amalgamation between this race and the Sinhalese was slow and imperfect, and it is probable that in the Veddahs and low caste Sinhalese of to-day we may still see some of their descendants.

After about 300 or 400 A. D. intercourse began with China, the sister Buddhist country, and to the works of Chinese historians we are indebted for a good deal of confirmatory knowledge of Ceylon in its early days.

STATUE OF PARAKRAMA BAHU.

In A. D. 459 the King Dhatu Sen was murdered by his son, who seized the throne and called himself Kasyapa the first. His brother whom he also attempted to murder escaped to India. Kasyapa was driven from the capital by the indignation of his subjects and seized upon and fortified the wonderful isolated rock of Sigiri where he was comparatively safe from aggression. His crimes, however, weighed upon him, and he endeavoured to atone for them by building



SIGIRI ROCK AND TANK.

(See page 80.)

[*Photo by Messrs. Skeen & Co.*]

monasteries and in other ways. After 18 years he was slain in battle by his brother who had returned from India.

At this time the invasions of the restless and more warlike Malabars (chiefly Tamils) became more frequent, and every now and then Ceylon was subject to the rule of a foreign usurper. By 700 A. D the invaders had to a large extent got control of the north of the island and in 769 Polonnaruwa, lying much further to the south and east than Anuradhapura, was made the capital, but in 1023 a Malabar ruler established himself even there and ruled for 30 years.

In 1071 there arose a dynasty which for a time rescued Ceylon from foreign invaders and conferred a new glory upon her history. The first of these was Wijaya Bahu who was succeeded by Parakrama Bahu, the greatest name in the long line of kings, and of whom a fine statue can still be seen near Polonnaruwa. He was crowned sole king of Lanka in 1155. The island being rendered tranquil, he devoted himself to the restoration and construction of great irrigation works and of religious monasteries. Later on he ventured abroad, a thing rarely done by the Sinhalese, and raided Cambodia and the Tamil kingdoms of the mainland of India.

Within 30 years of Parakrama Bahu's death the kingdom had so far deteriorated that the Malabars once more landed and conquered it, obtaining possession of all the north, while the Sinhalese capital was moved further and further south, finally in 1410 reaching Kotta, now an eastern suburb of Colombo. The Malabars had their capital with a king at Nallur near Jaffna, and the Jaffna district is to this day almost purely Tamil.

About 1408 the island was conquered and Wijaya Bahu VI deported by the Chinese in revenge for an insult to one of their Ambassadors, and for 30 years paid tribute to China.

In 1505 the first Portuguese appeared in Ceylon, and 12 years later the Viceroy of Goa ordered a Fort to be erected at Colombo. At this period the trade of the Indian Ocean was mainly in the hands of the so-called Moors or Moormen of Western India and Ceylon, but it was soon diverted, after the arrival of the Portuguese, to the route round the Cape of Good Hope.

The history of the 150 years of the Portuguese occupation of Ceylon is one with comparatively few redeeming features. War, trade and religion were the three main features in it: They were continually fighting with the kings of Kandy and the other minor kingdoms of Ceylon, to such an extent that the island probably cost them far more than it was worth. Towards the end of their time they captured Jaffna, and then owned practically the entire coast of Ceylon, but they never

had much control inland. The trade of the island was comparatively small, for as yet agriculture for export purposes was unknown. Religion was vigorously pushed, the most famous of the missionaries being St. Francis Xavier.

About 1639 the Dutch began to attack Ceylon and in that year they took Batticaloa and Trincomalee, while in 1656 Colombo surrendered to them after a long siege, only 73 Portuguese soldiers finally marching out, while of the Dutch only 1,200 remained out of 8,350. In 1658 Mannar and Jaffna were captured and the whole coast of the island thus fell into the hands of the Dutch.

There is but little to record about the period of Dutch rule. Unlike their predecessors, who resented every supposed attack upon their dignity, and were constantly fighting, they rather devoted their attention to trade, and tended to be as subservient to the kings of Kandy as the English in Bengal once were to the Great Moguls.

In 1753, Kirtti-sri, King of Kandy, restored the Opasampadawa or succession of Buddhist priests by bringing ordained priests from Siam. A large number of the temples in the Kandyan provinces were built or restored by him.

In August—September 1795 English forces took Trincomalee and Jaffna, and in February 1796 Colombo surrendered without a blow.

As to the work of the two nationalities that preceded the British we cannot do better than quote Sir Emerson Tennent "The dominion of the Netherlands in Ceylon was nearly equal in duration with that of Portugal, about one hundred and forty years: but the policies of the two countries have left a very different impress on the character and institutions of the people amongst whom they lived. The most important bequest left by the utilitarian genius of Holland is the code of Roman-Dutch law, which still prevails in the supreme courts of justice, whilst the fanatical propagandism of the Portuguese has reared for itself a monument in the abiding and expanding influence of the Roman Catholic faith. This flourishes in every hamlet and province where it was implanted by the Franciscans, whilst the doctrines of the reformed church of Holland, never preached beyond the walls of the fortresses, are already almost forgotten throughout the island, with the exception of an expiring community at Colombo. Already the language of the Dutch, which they sought to extend by penal enactments, has ceased to be spoken even by their direct descendants, whilst a corrupted Portuguese is to the present day the vernacular of the lower classes in every town of importance. As the practical and sordid government of the Netherlands only recognised the interest of the native

population in so far as they were essential to uphold their trading monopolies, their memory was recalled by no agreeable associations: whilst the Portuguese, who, in spite of their cruelties, were identified with the people by the bond of a common faith, excited a feeling of admiration by the boldness of their conflicts with the Kandyans, and the chivalrous though ineffectual defence of their beleagured fortresses. The Dutch and their proceedings have almost ceased to be remembered by the lowland Sinhalese: but the chiefs of the south and west perpetuate with pride the honorific title Don, accorded to them by their first European conquerors, and still prefix to their ancient patronymics the sonorous Christian names of the Portuguese."

The island having been taken by the forces of the East India Company was at first governed from Madras and the civilian placed in charge introduced the Madras revenue system with a host of Malabar collectors. This system was so entirely opposed to anything hitherto known in Ceylon, that the result was a rebellion and in 1798 the Colony was placed directly under the British Crown, the Hon. F. North, afterwards Lord Guildford, being the first Governor.

Meanwhile the last king of Kandy, Sri Wikrama Raja Sinha, was exasperating and alienating his subjects by brutality, license, and wastefulness, and at last, after one or two previous conflicts, in 1815 a British Army marched upon and captured Kandy. A rebellion occurred in 1817—19, but since that time, with the exception of the socalled Matale rebellion in 1848, the Kandyan provinces have been peaceful. The construction of a road from the coast right through the Kandyan territory contributed in no small degree to this.

In 1824 planting by Europeans began for the first time in the East, and 30 years later the mountain province of Kandy was the scene of a large industry in coffee and the island began to be very prosperous. From 1875 to 1885 the coffee industry was almost exterminated by an attack of disease which proved to be a blessing in disguise, tea, cocoa, cardamoms, rubber and other things being taken up in its place, so that the island has now a much more varied and general prosperity.

In 1869 the first railway was opened to Kandy and extension has gone on ever since, though with no great speed, until now a good part of the island is probably more generally prosperous than it has ever previously been, but it must be remembered that a very great part of the prosperity is due to the large planting enterprise kept up by Europeans.

Chapter VIII.

THE PEOPLE, THEIR RACES, CUSTOMS, RELIGIONS, &c.

THIS chapter is not intended to be an exhaustive treatise on the subjects with which it deals, but a brief account of the more prominent and noticeable features, one to appeal to the ordinary resident or tourist, and readers must keep this in mind.

The inhabitants of Ceylon are divided by the census into Europeans, Burghers, Sinhalese (low-country and Kandyan), Tamils, Moormen or Mohammedans, Malays, Veddahs, and "others"—a miscellaneous assortment mainly composed of the various races of India, among whom the most prominent are the "Afghan" moneylenders, whose powerful figures, picturesquely but somewhat warmly dressed, are very familiar in Colombo, Kandy, and elsewhere, and the Chetties, who have most of the money lending of higher class in their hands.

A COLOMBO CHETTY.

Europeans. To deal first with the masters in the island, there are about 7,000 Europeans, nearly all of British nationality, but including a few Germans, French, and others, in Ceylon. The largest part of these consists of the great planting community—perhaps 1,800 planters, many of whom have families. Then follow the commercial community of Colombo and to a less extent other towns, the Government servants, a few missionaries, soldiers, and others. Only in Colombo, and

to some extent in Kandy and towns of similar size is there any appreciable European society. Though the governing race, and the only one in Ceylon with much enterprise or foresight, they do not thoroughly acclimatize to the country, but must be continually recruited from Europe. With reasonable precautions, and observance of the rules of tropical hygiene, adult Europeans may retain their health here as well as in Europe, but children do not thrive after about the seventh to the tenth year, and must in general be sent to Europe, unless they can be kept above 5,000 feet. Even in the latter case their accent, their education, and their *morale* are liable to suffer.

The greater part of the export-trade agriculture, *i.e.*, the cultivation of tea, rubber, cacao, cardamoms, vanilla, camphor, &c., is in European hands, and seems likely to remain so for a long time yet. The larger commercial businesses, and many of the largest and best shops and stores are also in their hands, though the native shopkeepers of the Pettah of Colombo, and similar places, are steadily getting hold of more and more business. The bulk of the superior officers of Government are also Europeans, and in spite of the increasing good education of the native are likely to remain so, for the native is not in general fond of responsibility, and does not readily rise to it.

Burghers. This term, dating from the days of the Dutch, is commonly applied in Ceylon to people of mixed European and native descent, in fact as the term Eurasian is used in India, but strictly it applies to descendants of the Dutch, some of whom are quite white, and have no native blood in their veins. Unlike their confreres in India, the Burghers are in a very powerful position in Ceylon, and have a member in the Legislative Council. In Colombo especially, the Burghers may almost be divided into two classes, the poorer Portuguese Burghers, many of whom speak to this day a dialect of Portuguese, and the richer Dutch Burghers, who form a great community largely filling the posts of clerks in offices, and have been described as the brazen wheels of the executive that keep the golden hands in motion.

The great line of work adopted by the better-to-do Burghers is the practice of one of the professions of law or medicine, and many of the ablest lawyers, physicians, and surgeons in the island belong to this race.

Sinhalese. The Sinhalese form the bulk of the population of Ceylon, though the other races are slightly gaining on them. They are now divided into two sections, the low-country Sinhalese, most of whose men wear the comb in the hair, who have probably mixed a good deal with other races,

and who inhabit mainly the Western and Southern, and coast of the North-Western Provinces, and the Kandyans of the purer Sinhalese race, who inhabit the Central, Uva, Sabaragamuwa, North-Central, and part of the North-Western Provinces. The name has nothing to do with the English name of the town of Kandy, which is called by the natives Maha-nuwara, the great city, but applies to all the dwellers in the ancient Kandyan kingdom, and practically at this day, with few exceptions, to the dwellers in the hills or "kanda." The Kandyans are a very conservative and feudal race, but of recent years the more enterprising low-country men have settled among them to a considerable extent, and have got possession of much business, and often even of the ancestral lands of the Kandyans.

A SINHALESE VILLAGER.

Tamils. The Tamils of the island are of two kinds, usually known as Jaffna Tamils and estate coolies, the former only being real natives of the island. The so-called Jaffna Tamils occupy the Northern and Eastern Provinces, being especially crowded about Jaffna and Batticaloa. They are the descendants of the old conquerors of Ceylon, who mostly came from fairly far north in Southern India, and display more variety of caste than the coolies, while in physique and presence they are decidedly superior. The estate coolies, on the other hand, are temporary migrants from the extreme

A TAMIL BEAUTY.

[*Photo by Messrs. A. W. A. Plate & Co.*]

(*See page 86.*)

south of India (p. 54), are men of very low caste, usually of rather poor physique and presence, and very dark in colour.

Besides these Sinhalese and Tamils who keep to their own language and costume, there are the Colombo and Galle Chetties of Tamil race who speak Sinhalese by preference, and wear their hair long and fastened in a knot in the Sinhalese fashion, and the nominally Sinhalese fisher caste people of Negombo, who wear combs, but talk Tamil.

Mohammedans. These men, the Moormen, as they are usually called locally, are supposed to be the descendants of the old Arab traders or conquerors of very early times, who intermarried with Tamil women, and settled along the coasts of India and Ceylon. They usually speak Tamil as their mother tongue, and are men of finer physique and presence than most of the natives of Ceylon. They are in general, in the Sinhalese districts and in all the towns the traders and small shop keepers, while in the Tamil country, especially about Batticaloa they also go in largely for agriculture. In the interior Kandyan districts they talk Sinhalese and assimilate more to that race.

A TAMIL GIRL, EASTERN PROVINCE.

Malays. The Malays of Ceylon are very largely the descendants of the old soldiers of the disbanded "Ceylon Rifles" of thirty years ago, who have settled here, and are largely employed as hotel servants, watchmen, police, &c., besides having a business—that of working in rattan—which they have made especially their own. They are more courageous men and more amenable to discipline and training than the real natives of Ceylon, and this accounts for their large employment as policemen and watchmen.

Veddahs. These are a curious savage but harmless race living in the more dense and out of the way forests of the Eastern Province. They are but few in number, and are dying out, or intermarrying with their neighbours. The real rock Veddahs, now but a few, live on honey and on meat of animals slain with the bow and arrow. It has for long been a matter of discussion whether these men represented the real

aborigines of Ceylon, but the recent discovery by the brothers Sarasin of buried palæolithic stone implements in some of their caves would seem to set their antiquity beyond doubt.

Clothing. Every stage may be seen in the amount of clothing worn, from the mere rag tied round the middle of the body of a coolie in the low-country, to the interminable yards of muslin wound around his person, and the otherwise complicated costume of a Kandyan chief in full dress. In general the dress of the poorer classes, and of the villagers in the low-country, consists simply of the cloth, a petticoat made of a few yards of cotton cloth, fastened round the waist. This is commonly called in Ceylon the comboy, or some-

A KANGANI'S WIFE.

itmes sarong (the Malay word), but comboy (kambaya) literally means chintz. To this is added for low-country women a jacket or bodice with low neck, which as a rule does not reach the cloth by a few inches. Most of the higher caste Kandyan women wear one length of cloth, which is wound round the body below, and one end of which is thrown over one shoulder, and they also sometimes wear a jacket with short sleeves, while the lower caste women wear two cloths, one round the waist, and one over the body, but many now assume the single cloth. The Tamil women, at least the coolies, also usually wear the single cloth, while the Jaffna women commonly wear a somewhat ungraceful dress, consisting of a cloth fastened round the body higher up.

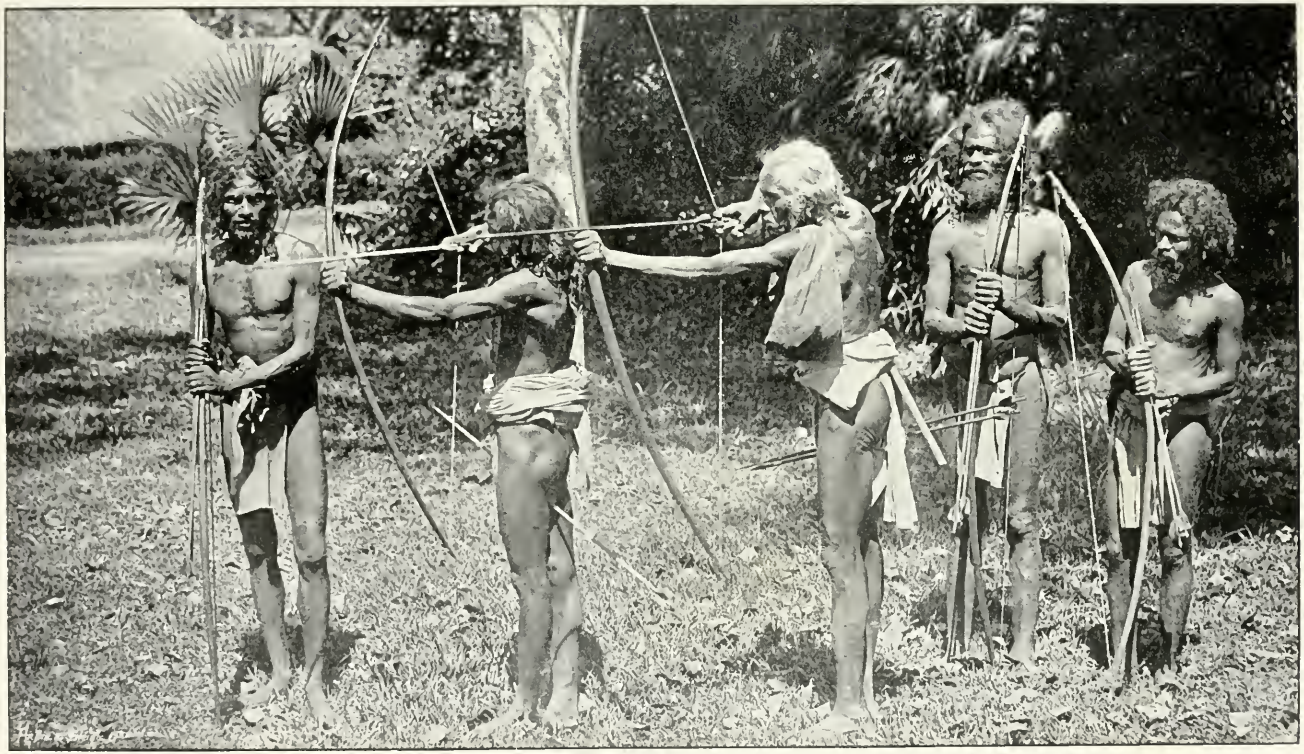


PLATE XXVI.

VEDDAHS. *(See page 87.)*

[*Photo by Messrs. A. W. A. Plate & Co.*]

Bungalow servants, and those coming into contact with Europeans or upper class natives, usually add to the cloth, for men, a plain jacket or undervest of European design, made of drill or calico, while clerks and other more anglicised natives commonly wear European clothes, often of khaki or drill at low levels, of flannel at higher.

The great majority of costumes in Ceylon, other than the simple cloth, have been more or less hybridised with European dress, and one can very rarely see real native dress in the country. Even the extraordinary attire of the Kandyan chiefs is partly European, the hat—of a pincushion shape—being a form of the biretta or barett cap, one of which was given by a Portuguese captain to a king of Kotta, and the coat being European. The muslin worn round the middle, often making the body into a kind of peg-top shape, and the pantalettes, are rather of native origin, however.

MOORMEN.

The feet are usually bare, though many natives, especially the Moormen, often wear sandals, which are supposed to be left outside on entering the chamber of any one of position, *e.g.*, a European. The more anglicised native of course wears boots or shoes.

The headdress shows some variety, apart from the wearing of hats or topees (sun-hats) by the anglicised natives. The low-country Sinhalese usually wear simply a comb of tortoise-shell, as nearly horizontal as possible, but those of the higher ranks, such as Arachchies, Muhandirams, or Mudaliyars, wear combs more like a lady's comb, standing nearly vertically in the back hair, and larger the higher the rank. The women usually wear no head covering at all.

The ordinary low-country Sinhalese villager wears his hair long, and ties it up in a knot or kondé behind. This is tied

in a moment and keeps firm though the hair is well oiled, and it might be worth while for the European woman to learn how to tie it. During the heat of the day the natives may often be seen with their hair untied and hanging loose.

The Kandyans wear a cloth or handkerchief round the head, looking very like a turban, and in the higher castes this is supposed to leave the top of the head uncovered.

They part their hair in the middle, and tie it in a knot behind, but do not wear the comb. The headmen and chief men wear a round hat, red or white, or with a pattern of gold or other colours, on ceremonial occasions. These hats are made by the dhobies, except in the outlying districts where they are not expert.

A MALAY GIRL.

The low-country Sinhalese in the interior villages also very generally wear the turban.

The Tamils usually wear a turban which in the case of the coolies is often made of a towel or other convenient cloth, but in the case of the Jaffna Tamils, especially their headmen and chief men, is often very elaborate and handsome, with red or gold stripes through it. They commonly wear the hair short, and often shave a portion of their heads, usually the front, entirely, but sometimes they tie the hair in a knot behind.

The Moormen usually shave their heads completely, and wear some kind of distinctive hat, usually the "beehive"

VEDDAHS. *(See page 87.)*

[*Photo by Messrs. F. Skeen & Co.*]

which is made of silk of different colours, woven into various patterns, and costs from Rs. 14 to Rs. 25. These hats come from Calicut in South India, where they are made. Owing to their cost they are specially affected by the well to do men, and many content themselves with a small white cloth cap, of pork pie shape, not much larger than a skull cap, and just large enough to stick on the shaven crown. The younger generation of Moormen, however, affect the fez, and it is to be regretted that this importation seems likely to supersede the silk toppi, which is distinctive of the Ceylon Moormen. The Moormen of South India wear a silk cap made in the same way, but of different shape—not tapering, but of pork pie

DHOBIES AT WORK.

shape. This hat, though more popular in South India, has not established itself among the Ceylon Moormen, who prefer the "beehive."

Clothing in Ceylon is washed by the dhoby or washerman, whose method is simple, but trying to flimsily constructed garments. He wets the clothes, soaps them, dips them in the water, and beats them with a drawing motion upon a smooth flat stone. At the same time, it must be made clear that it is the fashion to abuse the dhoby, and it is really rather doubtful if he actually harms clothing of the simpler kinds so much as a steam laundry. For fine things he is, however, destructive, and usually lacking in the skill to "do them up" at all properly.

Bathing. Cleanliness is next, or even superior, to godliness in the view of the native, fortunately, and though he does not, if poor, keep his clothes very clean, he is particular to keep himself well washed. As a general rule he bathes himself all over once daily, except on Tuesdays and Fridays which are unlucky days, most often at sundown, and in the nearest river or stream, washing himself down with soap, and pouring water over himself from a chatty, or ducking himself in the water.

Europeans rarely care to bathe in the streams, but take their baths in their own bungalows. As a general rule up-country at least the bath is taken "with the chill off," enough warm water being added to remove any chilly sensation, as after a time in Ceylon one begins to find it too great a nervous strain to bathe in cold water; and it is often taken before dinner rather than in the morning.

At Negombo, Mt. Lavinia, Ambalangoda, Galle and elsewhere along the coast, excellent bathing is to be had in places safe from sharks, and the water is of such a pleasant temperature that one can stay in for a considerable time without injury. It is not infrequent to visit Galle or Ambalangoda for the express purpose of sea bathing.

Houses. The better class of natives live in several roomed houses, of more or less European pattern, and usually of early Victorian style of furnishing, but the villagers, and the poorer class generally, occupy one or two room houses which are practically only sheds closed in at the sides. As a rule they are built of wattle and daub, or mud and wattle (both expressions are used) that is to say of a slight framework of bamboo or other wood, filled in with mud, and are roofed with thatch, cadjans (plaited coconut leaves) or half-cylindrical tiles. The front is usually boarded up at night with planks standing closely against one another, and numbered in arabic numerals to facilitate placing them in order. The average native is very much afraid of cool air, and likes to shut himself up very closely at night. In the mornings, at Kandy or at any higher elevation, he may be seen muffled up in a cloth or shawl to avoid the cold.

The Kandyan house is built round a small compound, or rather impluvium like those at Pompeii, with no windows on the outside. In some parts of the north-western, north-central and northern provinces, each house or set of houses is surrounded by a fence, and the whole village, which is compact, is surrounded by a similar fence, outside of which is the *tisbamba* or clearing before one reaches the jungle.

The houses being mainly used to sleep in, contain but little furniture, and life is mainly conducted in public on the

NATIVE LIFE IN COLOMBO. *(See page 93.)*

[*Photo by Colombo Apothecaries Co., Ltd.*]

little verandah in front, where the children may be seen running about, the women of the household pounding rice in a mortar, the man sleeping in peace, and everything else going on.

As the native advances in life, he is naturally anxious, like the white man, to move into better and better houses. Near Ambalangoda, and in other places amusing illustrations of this may be seen. There are so many unfinished houses that one's first impression is that the district must be decaying but in actual fact these are houses begun by better to do people, and left unfinished for want of funds, the native not being very remarkable for foresight.

Furniture in Ceylon is in general poor, and made very largely of unseasoned wood, though there are some pretty pieces of furniture, especially made in Dutch times, to be

A VILLAGE STREET.

had. Most Europeans move so constantly that they usually sell their furniture at each move, and buy fresh, and only in a few houses does one see really good and tasteful furniture, well matched.

Food. The great staple of diet of the native of Ceylon is rice, and the common dish rice and curry, though other foods and other dishes are common enough. Curry in Europe, being made with dry "curry powder"—the ingredients of curry dried and powdered—has of course but little variety, but in the East this is not so, and a wonderful assortment of dishes can be made by varying the ingredients and their proportions. The commonest of these "curry-stuffs," as they are called, are chillies, coriander, garlic, turmeric (locally known as saffron), fenugreek and caraway seeds, green ginger, onions, curry leaves of various kinds (most common that of *Murraya Koenigii)* limes and coconut.

The curry usually consists of a dish of vegetable curry one of meat curry, and the rice (boiled). To these are usually added small dishes of sambals, which commonly consist of garlic and chillies, surrounded by grated coconut, and also, not infrequently, popadams, large dry crinkled biscuits supposed to be made of turtle's eggs, pulses or lentil flour, fried in oil.

Poor coolies are often unable to afford good curries and simply eat the boiled rice with salt. Well-to-do people usually demand two vegetable curries with one of meat.

Every kind of meat and vegetable is put into curry. One of the commonest ingredients is the unpleasantly odoriferous dried Maldivian fish to be seen in every shop. Europeans who have lived for a long time in the island are often very fond of rice and curry, and if not made too hot with chillies it is a healthy and easily digested dish.

The common drink of the native is of course water, though he also consumes toddy, arrack, and gin, as well as other drinks if he be a little anglicised. He is not particular as to his water, and such refinements as boiling or filtering even the most impure water are unknown to him, or if known, regarded as amiable fads of the European. In country that is in any way hilly, one of the commonest sights is a little stream pouring over the side of the road upon a cut piece of a Pandanus leaf or other leaf, under which a bucket, or most often an earthenware pitcher, or chatty as it is locally called, can be placed.

SINHALESE GIRL WITH CHATTY.

The native is very partial to tea and coffee, and the local sale, especially of tea, is continually increasing.

Europeans in Ceylon live much as in Europe, but rather with French than English hours for meals, the general times up-country being "early tea" about 6·30—7, "breakfast" 11—12, afternoon tea 4, dinner 7·30—8.

Physique. In this respect the average native of Ceylon is far behind the Chinaman or the native of northern India, though he is in general well developed, and thanks partly to the habit of carrying goods upon his head, of very straight

carriage. One rarely sees in Ceylon the stunted, undersized specimens of the race that one may see every day in a town in Europe, food and fresh air being in general plentiful and easily attainable in this country. Some of the low castes, such as toddy drawers, whose occupation gives them a bent back, are misshapen, and many low-country Sinhalese are often undersized.

The children here are generally allowed to run naked for some years; they begin very early on a rice diet, and become very "pot-bellied," but this passes off as they grow older. When quite young their mothers carry them astride upon their hips, with one arm round them. Speaking generally, the children are decidedly pretty, but as they grow to maturity they often lose their good looks. The old women are usually very hag-like in appearance, while the old men, especially those of high caste, are often very handsome, and some of the Kandyan chiefs are among the handsomest men to be seen in the world.

TAMIL COOLY CHILDREN.

The native of Ceylon is not blessed with any very great physical strength, and cannot carry anything like the load that coolies in Assam or Malaya can manage. About 40—50 lbs. is usually as much as he can carry, and the amount must be reduced at high levels, on account of the diminished capacity for exertion in the rarefied air.

The native is unusually flexible in his person, and it is surprising to see the attitudes in which an ordinary cooly can work with comfort. A common thing is to see them weeding with their backs actually hollowed and their legs straight, an attitude that no white man could maintain. At light exertions such as walking, the native is unusually good, and even a woman will walk long distances without any apparent fatigue. The ordinary native will walk the white man down.

Names. The name of the average native, and that the more the higher his position, is rather a mouthful for the European. To take a few at random from the Ceylon directory,

we have, as common Sinhalese surnames (really patabendi names, used as surnames in imitation of the European custom), Amarasekara, Bandaranayaka, Dharmaratna, Gunasekara, Gunawardana, Jayatilaka, Karunaratna, Rajapaksa, Seneviratne, &c. These, especially if the man be of high caste, are prefixed by numerous others, often equally long, so that the whole name becomes somewhat formidable. But, on looking through the directory, one soon notices that the most common names are Portuguese, *e.g.* de Alwis, de Livera, de Silva, Perera, &c., and that there are several common Dutch names also, *e.g.* Bartholomeusz or de Hoedt. In the latter case, the names are generally those of Burgher families, but this is by no means the case with the Portuguese names, which are very commonly borne by pure Sinhalese. They were taken in the time of the Portuguese, and sometimes indicate a trace of mixed blood, sometimes the taking of a European name at baptism or its purchase with the title of "Don;" and not uncommonly they have been taken simply from a desire to rise in the world by appearing of higher rank or caste than that in which one was born.

In the Kandyan districts there may be village names, *e.g.* Nugawela, used by the chiefs, much as by Scotch lairds, patabendi names, *e.g.* Chandrasekara, given by the kings, gedara names, *e.g.* Thalagedara, and personal names, *e.g.* Punchirala or Kaluwa. The first two are not borne by low castes, or only rarely.

The Tamils and Mohammedans have also long names: in the case of the former, the 'surname' comes first, *e.g.* Arunasalam Vyremuttu is Vyremuttu son of Arunasalam.

Caste. The common impression, fostered by many things, and especially by the conversation of the ordinary clerk or similar person, is that caste is dying out in Ceylon, but in actual fact this is by no means the case, though it was never so strong among the Buddhists (where it is social) as the Hindus (where it is religious). Only among the Mohammedans is there no caste, and this perhaps accounts, in India and Ceylon, for the readiness with which the religion makes converts, for the new believer becomes a member of a powerful body which all stands together like one caste.

There are a large number of castes among both the Sinhalese and the Tamils, though in actual practice the bulk of the Tamils one meets, *i.e.* the estate coolies, are of the very lowest castes. Beyond the fact that meat can only be carried by a low caste cooly, that certain servants will not do certain duties, and in a few other ways, the existence of caste rarely affects the visitor or resident in Ceylon, and we need not therefore go into the question.

THE HIGH PRIEST OF ADAM'S PEAK.

[*Photo by A. W. A. Plate & Co.*]

(See page 97.)

An interesting body is the Rodiyas, an outcast race living in the Kadugannawa and other districts, and remarkable for the handsomeness of the women, and often for fine physique. They are said to be descendants of outcast royal and other families.

Religion. Ceylon being the home of the three greatest non-Christian religions besides containing numbers of Christians, the question of religion is one of some interest. The majority of the Sinhalese are Buddhists, of the Tamils Hindus, of the Moormen Mohammedans, while a number of each, and the Burghers and Europeans, are Christians, more especially Roman Catholics. It is of course impossible, within the limits of the present book, to give more than the barest outline of the beliefs and customs of the different religions, and we may commence with the Buddhist, this being professed by the majority of the inhabitants of Ceylon.

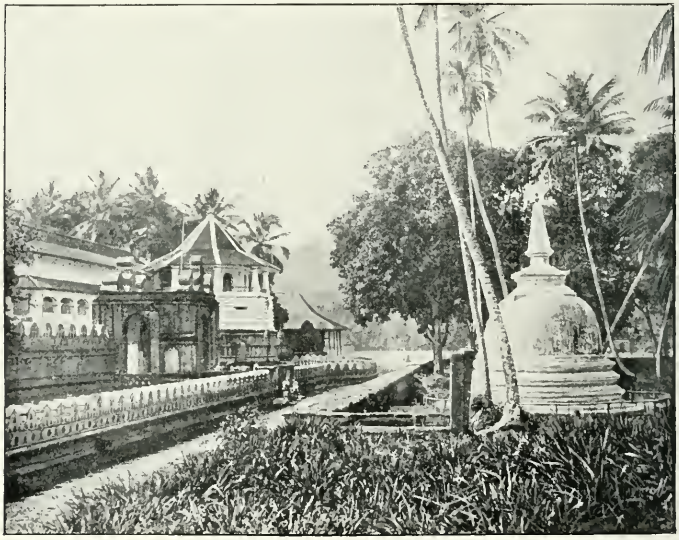
The central figure of Buddhism in the present age of the world (the Buddhists believe that there are many) is Gautama Buddha, who lived in the sixth century B.C., and died in 478 B.C., teaching in Northern India. He attained his Buddhahood under a bo-tree, which is consequently very sacred in Ceylon, and of which a very ancient example still survives at Anuradhapura. The cardinal points of his teaching were that all life is suffering arising from the indulgence of desires, and that the aim of existence should consequently be to suppress desire; as this is done Nirvana, or a state of blissful unconsciousness, is attained, and this interrupts the succession of lives through which one would otherwise pass.

Gautama is said to have visited Ceylon on three occasions, and on the last to have ascended from Adam's Peak, where his footstep is still worshipped by crowds of pilgrims, but no permanent trace of his religion was to be found here till the visit of Mahinda in 307 B. C. This prince alighted on Mihintale, it is said, and preached the new religion to the king and people, with wonderful success, and from that time forwards the national religion of the Sinhalese has been Buddhism.

Buddhist priests, or rather monks, soon became very numerous, the life rather appealing to the habits of the Sinhalese, and to this day there are very numerous monasteries all over the island, while the monks in their yellow robes, often with begging bowl under their arms, form a very conspicuous and picturesque feature in the life of the country. The monk is supposed to live very simply, in a pansala (literally dwelling of leaves) and beg all his food; but in actual fact some of the monasteries are now fairly wealthy, though with the recent revival of Buddhism due to the work of the Theosophical

Society, the monks show more sign of living exactly up to their rules. There are three sects of these monks; the Siamese, mostly in the hill country, who wear their robes so as to leave the right arm bare, the Amarapura, who have the right arm covered, and the Ramañña.

In actual fact, in most villages, Buddhism expresses itself in simple life, and in periodic visits to the temples, especially at the period of full moon, when flowers are offered at the dagobas and shrines. The ordinary villager has by no means got over his belief in devils, and the devil dancers, as they are called, are still a numerous body in the island. They are



TEMPLE OF THE TOOTH AND DAGOBA, KANDY.

especially employed in cases of disease, which is put down to possession by some particular devil. Masks are worn over the face, varying according to the disease, and jingling bells and other adornments on the body, and great dances are kept up in the patient's house to drive away the devil concerned. Devil dancers also take part in peraheras and other functions. The perahera is a native religious procession, and the principal one takes place in Kandy every August for a fortnight, ending at the full moon. It is a great procession of elephants (dressed for the occasion), chiefs, devil dancers, &c.

Not only is there this admixture of devil worship, but the Buddhist religion has undoubtedly been more or less

BUDDHIST PRIESTS.

[*Photo by Colombo Apothecaries Co., Ltd.*]

(See page 97.)

hybridised with the Hindu, as may be seen in the frescoes on the Kandy and other temples.

Among the numerous precepts of Buddha is one forbidding the slaughter of animals, and in consequence of this it is very hard to get a native to kill anything, while they may be seen sitting by the roadside exploring one another's foliage, and in other ways preserving animal life.

Turning now to the Hindu religion, which is professed in Ceylon by the native Tamils of the north and east, and by the numbers of Tamil coolies employed on the estates and elsewhere, there is no doubt that the earlier simpler religion laid down in the Vedas or sacred books has become much more complex, that new gods have been added, and the religion altered and hybridised in other ways. Strictly speaking, there is one god, Brahma, with three manifestations, Brahma the creator, Vishnu the preserver, and Siva the destroyer, but in actual fact Brahma is now very rarely worshipped, and the religion is divided into two main sects, worshippers of Vishnu and of Siva, and each sect attributes to its own chief deity some at least of the attributes of the other two. The worshippers of Vishnu are distinguished by the mark that they bear upon their foreheads, and which is often erroneously called a caste mark, viz., two white vertical lines, with a red or yellow one between them. The worshippers of Siva vary in their markings, but the most common is to smear the forehead with white ashes and draw horizontal lines across it.

Vishnu is supposed to have gone through various incarnations, the most famous of which is that of Rama, whose struggle with Ravana, the demon king of Lanka or Ceylon, for the recovery of his wife Sita, is the subject of the great Indian epic poem the Ramayana. Ramasami—the god Rama—is perhaps the commonest name among the Tamil coolies, and is used like "Tommy Atkins" as a kind of generic name for the whole lot of coolies. In a similar way, the human soul is supposed to go through a vast series of incarnations, millions in number, commencing with low forms of life, working up to low caste human beings, then to high caste, and finally being absorbed into Brahma.

Among the lower orders of Hindus, belief in devils and other minor deities is universal, and all kinds of gods have to be propitiated, such for instance as the goddess of small-pox. One of the commonest sights in Ceylon is a swami-tree, a tree in which some spirit or other is supposed to have taken up his abode, and beneath which is a little altar, often simply of a brick or two, upon which offerings of flowers, rice, &c., are made.

The cow is a particularly sacred animal to the Hindu religion, and none but a cooly of the lowest caste will carry beef.

To turn lastly to the Mohammedans, their creed may be summed up in the words "there is one God, and Mohammed is his prophet, or apostle." Mohammed was born at Mecca in 570 A.D. and married Khadija. At 40 years of age he received his first divine communication. He was accepted as a prophet at Medina, to which he fled, and died there in 632 A.D.

THE HINDU GOD KANDASWAMY.

The Mohammedan has four great duties, to offer prayer five times a day, to give alms, to keep the fasting month of Ramazan, and to make a pilgrimage to Mecca. The returned pilgrim is known as Hadji, and may wear a green turban as a mark of his sanctity. Such pilgrims are comparatively rare in Ceylon, where the Mohammedans are not of the strenuous type so usual in Mohammedan countries.

The Mohammedan is allowed four wives, but in Ceylon one only is the rule. He arrives ultimately at a heaven of sensuous delights, while a separate heaven is assigned to those women who may be worthy of it. The most important Mohammedan festival is Muharram, a fast in remembrance of the death of Hasan and Husain, the grandsons of Mohammed. It lasts ten days. Later on there is the month's fast of Ramazan.

HIGH PRIEST SRI SUMANGALA INSTRUCTING A CLASS IN THE ORIENTAL COLLEGE, COLOMBO.

[*Photo by Skeen & Co.*]

(See page 97.)

Christianity is strongly represented in Ceylon, especially by the Roman Catholics, who include a great number of the fishermen and others. Every important religious community from the Church of England to the Salvation Army, is represented in the island, usually by missionaries, and application should be made to the heads of these communities by those wishing to see the work that is going on.

Education. This is a most difficult subject to handle, were one concerned with more than the mere facts of the education that is actually going on in the colony. Ceylon has definitely decided for an education of the European pattern: and on the one hand, it is by no means certain that an English education as such is calculated to bring out to the best advantage the good points of an oriental people, who have a very different outlook on life, while on the other hand, Ceylon is very much anglicised, and is over-run with English people and tourists, so that an English education is alone fitted, as matters at present stand, to qualify a native for employment in anything but ordinary native agriculture or other pursuit.

Be this as it may, however, the education is at present English, in the towns and in the upper schools, and it must apparently continue to be so, English being the language of commerce and travel.

It would seem natural and right, in the case of a race like the Sinhalese or the Tamils, who have a language, literature, history, and culture of their own dating very far back, that these subjects should, as far as may be, be utilised in education, instead of European versions of similar subjects as they relate to England or other countries; but to properly devise a scheme of education best suited to the wants of the people of Ceylon is a big task to put before any one.

There is, in Ceylon, no general type of education employed in all the schools, but one may find every kind, from the higher classes of the Royal College, conducted in English, and learning conic sections or a play of Aeschylus, to the simple pansala school, where a few boys are taught by a Buddhist priest, by means of ola—or palm leaf—manuscripts, in the vernacular. Some schools are Government, some belong to one, some to another mission body, of which Ceylon has many.

Under the Dutch, education was carefully systematised, and attendance at the schools was made compulsory. The teaching was largely religious, and formed part of the general scheme under which the Dutch hoped to convert all the natives of Ceylon to their own religion. When the English captured the colony in 1796, they neglected education for many years, but about 40 years later the question was taken up by the

British Government, though in the meanwhile a good deal had been done by various missionary bodies. The first Government institution to be started was what is now the Royal College in Colombo, whose object then was to give a simple but good education in English, Classics, Mathematics, and Religious Knowledge. A little later a kind of amateur educational commission was started, and in 1867, finally, the department of Public Instruction, under a Director, was commenced, and endures to this day.

The schools of Ceylon may be primarily divided into two classes, those kept up by the various mission bodies, and

PANSALA SCHOOL.

those kept up by the department. They are all examined by Government inspectors, and to those that have earned them, grants in aid of maintenance are made, this constituting a considerable part of the now heavy expenditure under the head of education. In 1902 there were 515 Government schools with 59,512 scholars, and 1,424 mission schools receiving grants in aid, with 129,891 scholars. There is no rule in Ceylon enforcing compulsory attendance, so that this number of scholars must be looked upon as very satisfactory, and in fact, considering the short period during which many children go to school, it represents a very good proportion of the children of school age.

DEVIL DANCERS. (See page 98.)

[*Photo by A. W. Andree.*]

Whilst in the country places the education is of course given in the vernacular, in the larger towns, and even in some of the villages, there are definite English schools, in which instruction is given in English, or in which, as in the Royal, St. Thomas', St. Joseph's and Wesley Colleges in Colombo, the whole of the teaching is conducted in English. Other still higher instruction is given at the Technical and the Medical Colleges.

Physical training is not left out of sight; the boys at many of the larger schools are excellent players of football, cricket, and other games, while cadet battalions also exist in some of

PHYSICAL DRILL.

them. Agricultural teaching, as such, is not given in the schools, it being too early for most boys, and the teachers being untrained in the art, but a very effective substitute is to be found in the school gardens, which are now in existence in a large number of the village schools. These are little gardens, kept up by the master and the scholars, in which are cultivated plants which are not now staples in the cultivation of the district in which the school lies, and which may consequently form new cultivations there as they are taken up, while they do not invite comparison with local agricultural work.

Those who wish to see for themselves how teaching is conducted in Ceylon should apply at the office of the Director of Public Instruction in Colombo, or to the heads of the various mission bodies.

Occupations. Here again we must be very brief. The great and honourable occupation of this country is agriculture, but a distinction is drawn in that it must be upon the man's own land, and not serving as a cooly upon other people's land. Hence it is very difficult to get the natives of Ceylon to go out to work upon the European estates. About three fourths of the people are engaged in agriculture, but, as mentioned above under agriculture, their methods are simple, inefficient, and old-fashioned.

A SCHOOL GARDEN.

A very large number of people are employed upon work subsidiary to agriculture, such for instance as the transport of goods. This is usually done in Ceylon by the aid of the slow-moving double bullock cart (Plate VI), upon the pole of which the carter sits. The bulls are strong on the whole, but only go at a rate not exceeding two miles an hour, and cannot do more than about 14 miles in the day—or very often night, for the native is very fond of travelling then. Goods are carried down the larger rivers by means of pada boats, which are

THE PERAHERA, KANDY.

[*Photo by Colombo Apothecaries Co., Ltd.*]

(*See page 98.*)

PLATE XXXIII.

simply double canoes, the two canoes some distance apart with a platform and roof on the top of them. For smaller loads and shorter distances the single canoe with outrigger is usually employed. In outlying districts carriage is still performed by pack *(tavalam)* bullocks with paniers on either side, and in the towns very commonly by women.

Another very common occupation is fishing, and the great caste of the fishers is mainly to be found along the coast. The common boat is the large single canoe, with outrigger on one side, and large square sail. The outrigger is always kept to windward, and the boat is sailed either end first. In strong winds one or more men sit upon the outrigger, and wind may be described as a one-man breeze, two-man breeze,

PADA BOATS.

&c. During the strong winds and heavy weather of the south-west monsoon many of the west coast fishermen go round to the other side of the island.

Yet another common occupation is shopkeeping—in the very broadest sense. While in Colombo there are many large and well equipped shops kept by natives, in the smaller villages the shops deteriorate into little stalls with a few curry stuffs, cloths, oil, &c. In Sinhalese villages they are usually known to Europeans as boutiques (Portuguese botico), in Tamil as kaddies. A good deal of selling is also done by the roadside, and itinerant vendor of betel "chews" (sold on little stands, in which the leaves of betel are bent upwards between upright sticks placed in a row), roasted gram (a grain not unlike peas), drinks of sorts, sweetmeats, and other things, are very common.

Owing to the openness of the ordinary native houses many occupations may be seen going on in the full light of day., *e.g.* that of the barbers, the lace makers, the weavers, and others.

House servants form quite an important class, as more servants are needed here than in an establishment of the same size in Europe, though not so many as in Northern India. The chief servant is usually known as an appu, and under him there are often a second boy (housemaid), a cook, a kitchen cooly who does the heavy work in the kitchen, and sometimes others. An ayah is usually employed in houses where there is a baby, or where the mistress wants a personal maid, and there is commonly a muttu or horsekeeper, who is usually a Tamil, while the rest may be either Sinhalese or Tamil, though usually all in a house are of the same nationality. In economical households of Europeans, as *e.g.* an estate assistant's, the servants are usually only an appu and a kitchen cooly.

BASKET WOMEN.

Many men are employed in mines of plumbago, or of gems &c. (Plate II), and others are employed in the trades of baker, butcher, carpenter, toddy drawer (who climbs the palms and taps them for toddy; see p. 47) and so on. Yet others are engaged as jugglers or as devil dancers (p. 98).

Coolies, *i.e.* literally men on daily pay, form a very important class in Ceylon. Most are Tamils employed on the tea and other estates (p. 54), where they live in little one-roomed dwellings called lines. Many are engaged in rickshaw pulling, road making, and other menial occupations.

Lastly we come to the professions and other occupations of those of a higher class. A vast number of men are employed as clerks, and the abler ones take especially to law and medicine as professions. The lower ranks of the Government service are filled by natives, but these do not very often occupy the highest posts, except in the legal profession.

KANDYAN CHIEF. *(See page 88.)*

Language. Several languages are spoken in Ceylon, and a candidate for a post, *e.g.* on the railway or in the post office, must frequently be able to speak the three tongues English, Sinhalese, and Tamil. The most usual native language for the European to learn is Tamil, but not what is often called "book Tamil," the language of the higher class Tamils of the north and of Madras, and the language used in an extensive literature. The planter who used this language to his coolies would soon be in great difficulty, and they require to be addressed in the dialect of the Madura or other divisions of Southern India. As the great majority of the Sinhalese up-country also learn this dialect, it is the common means of communication employed in Ceylon, but the moment that one leaves the planting districts and the chief towns, it becomes useless and one requires the Sinhalese or Tamil spoken in the particular district in which one may be.

FISHING CANOE.

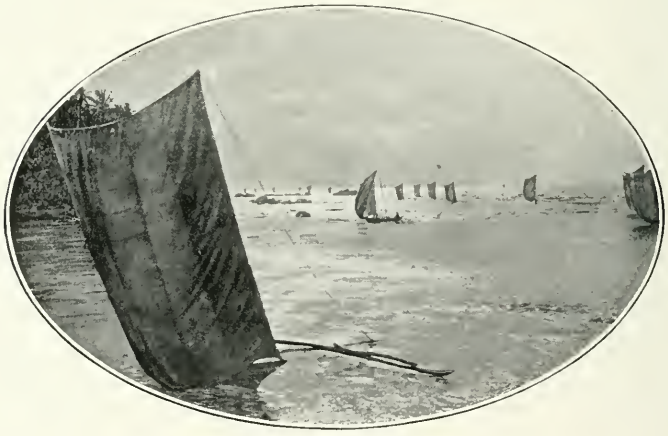
Sinhalese is usually supposed to be an Aryan language, allied to the Sanskrit, and indeed the roots of very many words are the same as those of the European words, as may be recognised for instance in the numbers, which run eka, deka, tuna, hatara, and so on, while many words, *e.g.* dora, a door, watura, water, and others, have settled down into a form closely akin to the European. Tamil, on the other hand, is a Dravidian language, and the roots are dissimilar, *e.g.* the numbers run ondu, irandu, mundu, nalu &c.

The Burghers and the Europeans mainly speak English. Dutch has died out, but a corrupt patois of Portuguese is to this day spoken by many of the lower class Portuguese Burghers in Colombo.

A great number of European words, mainly Portuguese or Dutch, have become established in the native languages,

especially such as relate to houses, furniture, and meals, *e.g.* almira (Scotch awmry) for cupboard, kantoor for office, coachee for railway carriage, to take one each from Portuguese, Dutch and English.

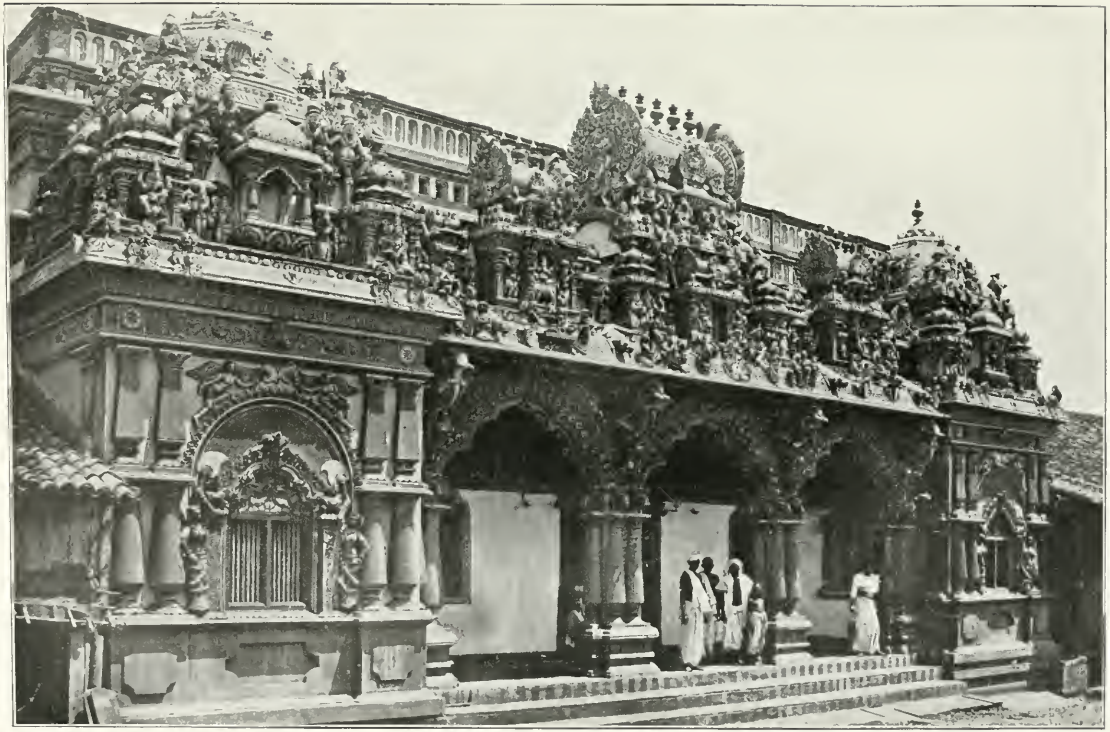
Art. Ceylon in old times was probably, like India, a very artistic country, but with the continual intercourse with Europeans, and still more with the commercial spirit of modern times, and the ease and cheapness with which inartistic European goods can be bought, its art is decaying, and the old arts and crafts are all but extinct. How best to revive them is rather a problem. The Kandy museum, with its attached craftsmen, were it better known to and supported by, visitors to the island, would do a good deal, but it would seem probable



CANOES AT SEA.

that a central depot for art work in Colombo, accompanied by the distribution of prettily illustrated advertising "folders" upon the steamers, showing what kind of work could be had, and approximately at what prices, would do more. There are probably more people among the passengers to Ceylon with a feeling for true art than among the residents in the island, and there is certainly more money among them available for spending.

The native who has lost his taste for his own art is in regard to whatever style of art he adopts among the most inartistic people on the face of the earth, as one glance into any native house furnished in European style will show. Many are in the very worst style of early Victorian, whereas a native house furnished in the old native manner is a pleasing sight.



HINDU TEMPLE IN COLOMBO.

[*Photo by Colombo Apothecaries Co., Ltd.*]

(*See page 99.*)

Sinhalese art is without doubt originally North Indian Buddhist, but very largely modified by centuries of intercourse with South India, and it now has a decided distinctive character of its own, Buddhism having died out upon the neighbouring continent. The artists, other than the potters and weavers, formed a caste, which was fairly high.

The principal art perhaps was architecture, and very good examples may be seen in the Buddhist temples in the Kandyan districts, such as Lankatilake, Kandy itself, &c. A temple usually consists of a vihara or house for the images, a dagoba (p. 79), a bo-tree with a platform built around its base, and a pansala or dwelling of the priests, while there may also be halls for preaching or confession.

Painting, again, may best be seen in the temples, where the walls and roofs are ornamented with fresco-like paintings, illustrating events in the life of Buddha &c. The older paintings are better than the modern ones, which are done with

VILLAGE BOUTIQUES.

too large and too garish a range of colour, while the older are mostly in black, white, yellow and red.

Ceylon has some very fine work in ivory, while the brass and silver work, in which there is still a large trade with tourists, is on the whole decidedly good. There are two classes of it, usually known as Kandyan and Negombo work. The former is beaten out upon a pattern, as may be seen in the Art Museum in Kandy, the latter is cast in moulds.

Local jewellery, so far as not spoiled by imitation of European work, is very good and artistic, and some of the jewels worn by the Kandyan chiefs are very effective. Workmanship rather than weight is regarded in the manufacture. Most of the jewellery sold in the shops, however, is simply in imitation of European goods, though there are one or two which seem local, such as the pretty bangles and necklaces of mixed stones, which are however mounted in western style.

Lacquer work survives only in a very few families; walking sticks for Kandyan chiefs, and other lacquered articles are

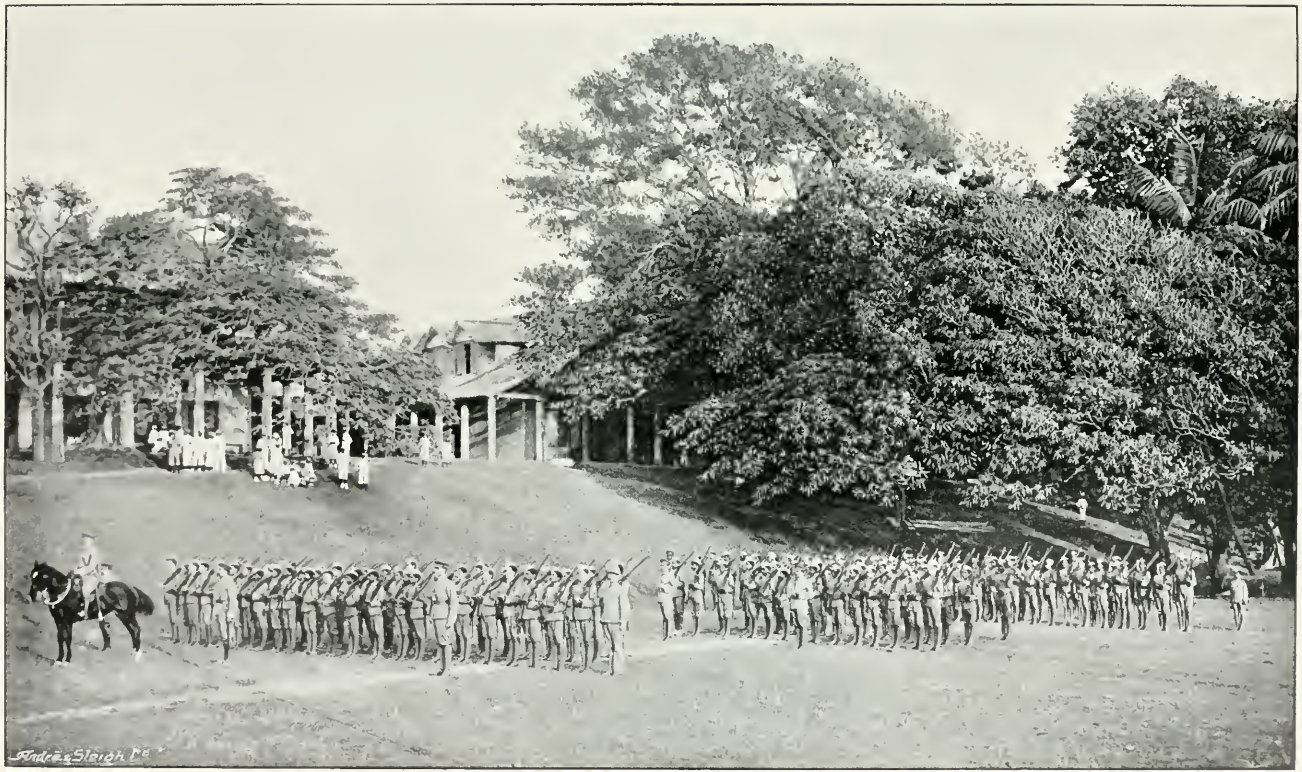
still made in small quantity. Weaving also is all but extinct, though the "Dumbara mats" and other articles of native manufacture can still be purchased,and the Tamils of Batticaloa still do quite a trade in cloths &c.

Music. This is not very largely practised in Ceylon, though there is a good deal. Native music differs from European in the shorter length of the intervals, so that local tunes all sound as if in a minor key. There are but few peculiar instruments. One of the commonest is the kind of flageolet, with a swelling in the centre of the tube, used by snake charmers and other musicians (fig. on p. 20).

Games and Sports. The natives of Ceylon are not what would be termed a sporting race, yet they have many games among them which deserve a word of notice. Marbles, played with a different method of propelling the marble to what obtains in England, are a favourite pursuit with the young Leapfrog, also played differently in detail, is not infrequent. The "frogs" first lie down, then sit up, then hold out their arms over their legs, and lastly stand up. A great national game, which has lately been revived at agricultural shows &c., is *ankeliya*, of which we may quote the following description from Le Mesurier's "Manual of the Nuwara Eliya District."

A TAMIL BARBER.

"It was, and is for the most part still, a purely religious game, sacred to the goddess Pattini, and is usually performed on the occasion of some epidemic ascribed to her interference ..... its mythological origin is as follows:—The goddess Pattini was out one day with her husband Palanga, gathering sapu flowers. To enable them to reach the flowers, they had long hooked sticks, and while they were stretching out together their two sticks caught in each other in the tree, and they could not extricate them. While they were considering what they should do, the three sons of Maha Vishnu came by, and on being appealed to by the goddess, they goodnaturedly took hold of the ends of the two sticks, and with "a long pull, a strong pull, and a pull altogether" broke the crook of the husband's stick, and so liberated them both.



CADET BATTALION, ROYAL COLLEGE.

(See page 103.)

PLATE XXXVI.

The goddess was so pleased with the performance that she suggested a game after the model of what she had just seen. So the game of *ankeliya* was inaugurated, and whenever it is necessary to appease the goddess, the game of which she is said to be so fond is performed to propitiate her and to rid the country of the particular scourge which she is considered in her anger to have brought upon it.

"The game is played as follows:—A flat piece of ground having been selected, the trunk of a large tree is planted in the centre (unless there is a large enough tree growing there already) and strong coils of jungle creepers ..... are wound round its base. About 4 or 5 yards in front of this tree an oblong hole is dug, 6 or 7 feet long by 3 or $3\frac{1}{2}$ feet broad, and from 4 to 5 feet deep ..... the sides are lined

LACE MAKERS.

with coconut stumps, and inside it is erected upside down a log of a coconut tree, about 24 feet long, with the roots shaved so as to leave a heavy top ..... to add to the leverage and strain on the horns ..... strong bands of creepers are coiled loosely round the base, a short distance above the level of the ground, and two long and strong ropes of jungle creepers are tied to the top ..... to be held by the persons taking part in the game, about fifteen yards off. .....

"In some places deer horns are used..... when the game is played on a small scale ..... but in ankeliya proper many kinds of roots are in use ..... the greatest care is taken in selecting and preparing these, for the slightest flaw or split in the horn would seal its fate in the game ..... When required for use they are tied to the centre of long and

stout pieces of wood prepared for the purpose ..... a horn 6 inches in girth would require a support of 7 or 8 feet long, and about 1½ foot round. ..... These supports are called *an-mola*. ..... "

The only other requisites are two coils of rope containing a specified number of coils, with a stick attached in such a way as to admit of its twisting the coils tightly when necessary. These are called the *waram*, and their size and strength depend on those of the horns.

The horns are then borne in procession to the place of contest, and the *waram* having been arranged, the horns hooked together, the opposing parties pull at the ropes till one horn breaks. If this does not occur, the coils round one horn are attached to those round the standing tree, and those round the other to the erect coconut stem, and both parties take hold of the ropes attached to the latter, and pull till one of the horns breaks, when there is a rush to see which it is.

The men of the upper horn, and the men of the lower horn, belong to these parties by hereditary descent, so that a given family is always of one horn or the other. The losing party are confined by a rope, and the winners dance round them with insulting language, to which they are obliged to submit in silence. The game is repeated on the following day, and so on till the upper horn breaks twice, or the lower thrice, running, or until it is found impossible to break a horn."

To quote another author:—"A procession is soon formed. A canopy is arranged so that the victorious horn may be duly honoured by being borne under it. Then the *perahera* parades the village, singing, dancing, gyrating in frenzied evolutions and shouting forth strange words with demoniacal gestures, all proclaiming their victory, the exaltation of their horn and the humiliation of that of their rivals. The excitement grows so intense that the victors foam at the mouth and shout themselves hoarse. Wherever the procession goes, it is supposed to carry blessings with it, especially protection from illness and disease. Every house in the village, which aspires to the honour of a visit from the *anga* must be cleaned; its inmates must bathe and don clean garments; the compounds must be swept and all rubbish and dirt burnt the previous day. In times of pestilence, the villagers at once proclaim an ankeliya.

"The consequence is that the place is thoroughly cleansed and purified. The pestilence naturally abates. Of course the result is ascribed to the beneficent influences of the devas who preside over the *ankeliya*. During epidemics, the ankeliya is held over and over again until the upper horn breaks three times in succession. When that rare coincidence occurs, it is believed that not another man, woman or child will succumb

A BOUTIQUE.

[*Photo by Skeen & Co.*]

(*See page 105.*)

to the sickness. Very often, by the time the upper horn breaks thrice, the village is so often cleansed, and perfect sanitary conditions unconsciously established, that the sickness does naturally disappear.

"It would seem therefore that there is more wisdom in the *ankeliya* than a superficial observer might be inclined to fancy, so it is a game which deserves to be preserved and encouraged."

Travelling. The native is capable of covering very long distances upon foot, and walking is a very favourite method of travelling, and often performed at night. Better to do people travel largely in the light bullock carts or hackeries, like a knife board on wheels, with a cover over them, drawn by the little trotting bullocks, which can go very fairly well for a few miles. Travelling by train is very popular in the Sinhalese

DESIGN ON LID OF A KANDYAN SILVER BOX.

districts, but not in the Tamil, where the people are more careful and saving. The native is usually at the station long before the train is due to start.

Medical Treatment. Ceylon speaking generally, is not an unhealthy country for those who are willing to conform to the rules of tropical hygiene. The natives themselves are generally healthy, and would be much more so were they willing to take precautions against attacks of malaria and dysentery, which are two of the great scourges of the country. But in fact this is the last thing they would most of them dream of doing, and they regard any leanings in this direction on the part of Europeans as an amiable eccentricity. So much is this the case, that in houses where careful sanitation is desired, it must be personally seen to by the mistress. The servants will unhesitatingly take water from the top of a filter, and swear that it has been filtered, or put clean water into a dirty vessel.

There are good hospitals all over the country, and in many of these, *e.g.*, that of Colombo, or that of Kandy, European patients will be received on payment, and this is in general the best thing to do when one is seriously ill. Nurses are supplied by the Nursing Home at Hatton to European patients. The Tamils are in general willing to go to hospital, or to be treated by western trained physicians, but the Sinhalese villager is commonly averse to this, and prefers to be treated by the Vedarala, or native doctor.

Customs, &c. The country is so to speak full of curious customs, and it would lead much too far to describe all of these, were we even competent to do it. Generally speaking astrology is at the base of most of these, and most of the larger villages, at any rate, possess an astrologer. From before a man's birth until after his death, many ceremonies, usually varying in form according to the dictates of the astrologer, are performed over or by him. As an illustration of what is meant, the customs connected with rice cultition, described on p. 43, may be mentioned.

HACKERY ON THE WEST COAST ROAD.

Among the habits and customs that at once strike the ordinary visitor or traveller, may be mentioned the fact that the native does not like to be seen eating, that he is very much afraid of the evil eye, and commonly (especially the Tamil coolie) puts up in his garden a chatty with white spots upon it to catch the first glance of the passer by, and that he has, like the Romans of ancient days, rather a weakness for being buried in public places. The graves of the estate coolies may be seen along every road up-country.

General Habits of Mind and Body. The European does not usually understand the native of Ceylon, nor *vice versa*, and much misunderstanding, and not a little undeserved dislike and contempt springs from this, which might to some extent be avoided. It should be clearly recognised that the eastern native is not of the European type, and that efficiency, economy of time and labour, and other characters upon which

A KANDYAN LADY (Note the Jewellery.)

[*Photo by Colombo Apothecaries Co., Ltd.*]

(See page 109.)

the white man prides himself, should not be looked for in the same degree in the native of Ceylon. No amount of education will in general conform the native to the European type more than simply on the surface.

Another way in which the native irritates the ordinary European is by his "laziness;" it is usually difficult to get out of him what the white man, accustomed to a hard northern country, considers a fair day's work. It must be remembered that in Ceylon life-sustaining is easy enough in most places with the minimum of labour, and that making money, which would seem to be the mainspring of the labour of the white man, is not much of an object with the native, who probably on that account has a happier life.

The native, at least the ordinary run of the lower castes, also dislikes responsibility, and does not rise to meet it, but rather tends to shirk it. For this reason, white men must at present, and for a long time to come will probably continue to, fill most of the responsible posts in the colony. Lying, again, is reduced to a fine art in this country, but it must not be supposed that the native lies because he would rather not speak the truth; it is rather in many cases, an expression of politeness; the enquirer gets the answer that the man who is spoken to thinks that he wants, or the speaker lies from a desire not to give away any of his own personal movements, intentions, or desires.

Feudalism is still very prominent among the Kandyans or mountaineers at any rate, and the relative distinctions of rank are there very marked, whole districts being subject—in a sense—to the local chiefs.

What would be termed in Europe bribery, but what is here looked upon rather as a natural payment for service done, is extremely common in Ceylon. This has been the national custom from time immemorial, and the native sees nothing wrong in it.

Rajakariya, or forced labour for the benefit of the Government, is now comparatively extinct in the island, though every adult male must pay a road-tax of Rs. 1·50 or work for 6 days on the roads every year. There is very little doubt that a considerable amount of service of this kind is got by the higher classes from the lower, and indeed it was by this method that the great dagobas, irrigation works, &c., in the north were built in ancient times.

The native is fond of processions, peraheras, and other tamashas as they are often called locally. He has a weakness for employment under Government, like the Frenchman, and is great at petitioning the powers that be, often in the most remarkable English, composed by the petition drawer.

Chapter IX.

ARCHÆOLOGY.

CEYLON is a very old country, with an art borrowed, introduced, or derived from Indian, it is true, but yet none the less distinctive and characteristic. It was a highly civilised country 2,000 years ago, and has been more or less decaying for the last 1,000 years. As is not infrequently the case in a decaying country, art flourished considerably, until about 60 to 100 years ago, but now seems all but extinct. What the reason of this may be is doubtful. It may be that the taste for artistic work among the people is dead or dying, for the less said about the tasteless way in which they frequently arrange their houses in what they are pleased to call European style the better. Or again, it may be that the people cannot afford to buy artistic things, for of course, cheap though they may be, they can hardly compare in this respect with the Manchester and German goods which the natives chiefly affect. Or yet again, it may be that the natives wish to appear like Europeans by copying their style, though they do this in poor taste. The fact that they so largely wear European clothes they generally explain in this way, and there is no doubt that should a clerk now dress in native attire he would find it more difficult to obtain employment.

The fact then remains, that native art is now very largely dead or dying, and that the people in general are or seem to be content with European art—if art it can be called—of a cheap and tawdry kind. It is therefore largely among the ruins and the old buildings that one must look to find really good or satisfactory examples of native art. There are extensive ruins at Anuradhapura, Mihintale, Sigiriya, Polonnaruwa, &c., and many fine old buildings round Kandy and Kurunegala and elsewhere.

The numerous ruins existing all over the north, and other parts of the island are now being excavated and conserved in as good condition as possible by the agency of the Archæological Survey kept up by the Government, and directed by Mr. H. C. P. Bell, whose annual reports should be read by any one particularly interested in archæology.

We may commence a sketchy account of Ceylon archæology by dealing briefly with Anuradhapura, which is much the most accessible of the old cities of the island.

ANURADHAPURA.

Going from the station to the town we come first of all upon the ruins, or rather remains, of the Brazen Palace, a vast assemblage of 1,600 large monoliths, partly buried in the ground, and standing vertically like those of Stonehenge. Upon these there once stood the Lowa Maha Paya or Brazen Palace, which appears to have been in reality a monastery, erected by King Dutugemunu, who came to the throne about 161 B.C. It is said to have been nine stories high, and to have been roofed with brazen tiles, besides being very splendidly ornamented.

Turning to the right past this, we proceed along the Sacred Road, trodden by pilgrims for hundreds of years, towards the Resthouse, and on the left is a large grassy plain or esplanade, more or less covered with ruins, usually in the last stages of decay, and represented by numerous erect or sloping pillars, and by flights of steps and bases of walls. Just opposite to the road leading to the Resthouse is the Ruwanweli dagoba (p. 79), the great work of King Dutugemunu, built between 161 and 137 B.C., rather spoiled by modern attempts at restoration, carried out by the monks. It is said to have been 270 feet high, but is now far short of that height. The entrance gate has been restored, and to the right of it is a pokuna or bathing tank of a unique conical pattern. There are two platforms round the dagoba, though only the upper one is in good condition, and upon this, to the left of the entrance, are several statues of more than life size, the largest of which is popularly supposed to be that of King Dutugemunu. Much of the earlier part of the Mahawansa chronicle is taken up with descriptions of the construction of this dagoba, and it is related among other things that the people being poor, the bricks were miraculously made near Anuradhapura by a god, and pointed out to a Veddah, who then told the king of the miracle.

South-west of the Ruwanweli, at some distance, are two pokunas, one on either side of the road leading to the Kachcheri; the northern one has been partially restored, and is now a very good example of an ancient bathing tank. Beyond this the road passes between the Kachcheri and the Post Office, and turns to the left, passing between three large tanks in which there is water at present. The uppermost is for drinking, the next for washing, and the third for dhobies. Beyond these is the entrance to a former botanic garden, in

which the new hotel is being built, and yet further on is the Miriswetiya dagoba, partially restored by the king of Siam.

Beyond the Ruwanweli to the north is Thuparama dagoba, the oldest in Anuradhapura, built in B.C. 307 by King Dewanampiya Tissa, to contain the right collar bone of Buddha. It is the most revered dagoba in Ceylon, and 50 years ago was recoated with chunam (lime plaster) by a monk who collected offerings for this purpose. It is a small dagoba compared to many in the neighbourhood, being only 63 feet high, and round it are three rows of singularly graceful monolithic pillars, while at the sides of the flights of steps there are some fine "janitor stones."

About 100 yards to the east, and on the north side of the road, there is a beautiful carved cistern of stone, said to date from the time of King Dutugemunu. It is cut from a single block of granite, and is ten feet long, and very thin. Near it is a dyeing vessel with a hollow at one end to contain the dye, and at the other end a flat surface upon which the monks' robes were laid out to have the dye worked in with rollers.

JANITOR STONE.

Returning to the Resthouse, in its very compound there has been excavated, in a comparatively complete state of preservation, the ruins of an almshouse, in which the monks used to be provided with food. There were probably many such refectories in Anuradhapura.

Proceeding again northwards past the Thuparama, we soon come to the Lankarama dagoba, an ancient small ruined structure, the side of which has fallen away on the north, exposing the manner in which these dagobas were erected. Beyond this we come to the Circular Road, and if the path on the farther side be followed for about 50 yards a jungle path, running to the right, will be met with, and this leads to some ancient cave dwellings.

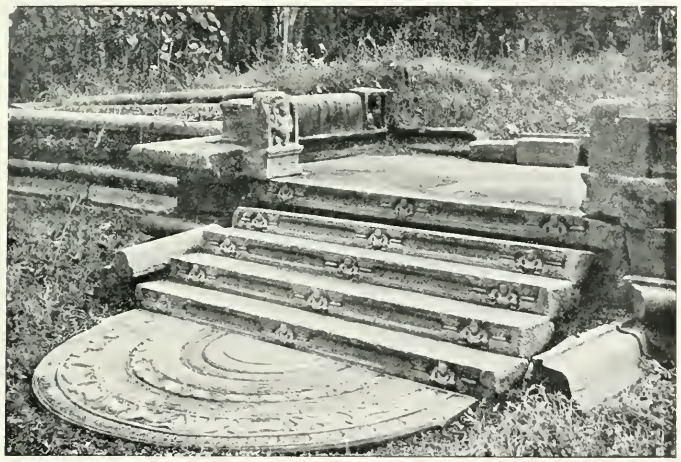
Returning to the Circular Road, and turning eastwards, we soon come to a ruin popularly known as the Queen's Palace, but in reality a vihara (p. 109). Leading up to it there is a flight of steps with a "moonstone" at the base. These moonstones, which are semi-circular, are common in Anuradhapura,

THUPARAMA DAGOBA. (See page 118.)

[Photo by F. W. Bois.]

and the best of all may be seen at the King's Palace (below). They are all of much the same design; the outer border usually shows the elephant, horse, lion, and Brahmany bull in procession, and is followed, proceeding towards the centre, by circles with designs from the lotus flower, a procession of the sacred goose or hansa bearing lotus buds, and more lotus designs.

A little further on, at the $3\frac{1}{2}$ m. post, there is a square stone with nine cubical holes cut in its upper side at regular intervals. There are several of these stones in Anuradhapura, always quite regular, with 9 or 25 holes cut in them, and what may have been their use or object must for the present remain doubtful.



FLIGHT OF STEPS AND MOONSTONE.

Near to this, on the south side of the road, is a large pokuna or bathing tank, of which there are many in the town. Nearly opposite to this is a fine stone canopy, which has been restored. Near to it are three sannas or inscribed stones. These are unusually fine specimens, but such inscribed stone tablets are common in Ceylon. A little further on we come to the well known "stone canoes," three enormous hollow stones, two of them monoliths, which are supposed to have been the receptacles of the food given by the king to the monks.

Further along this road is the socalled King's Palace, another vihara, with the finest moonstone and steps that have yet been found in Anuradhapura. Then the road curves

round the Jetawanarama dagoba, built by King Maha Sena about 300 A.D. Its height was 249 feet, but it has sunk from that, and is now covered with trees, and in a general state of ruin.

Just beyond the fourth mile is a large sedent statue of Buddha, a specially fine one, which is an object of great veneration to the innumerable pilgrims who visit Anuradhapura.

At $4\frac{1}{4}$ m. we come to the Kuttam Pokuna, or twin bathing tanks, one of which has been more or less restored, and is in very good preservation, and the carving on which is specially worthy of examination.

ISURUMUNIYA TEMPLE.

The road now runs on for some distance till it reaches the Abhayagiriya dagoba, the largest in Ceylon, and once 405 feet high, but now reduced to 231. It was falling down, and was partially restored by prison labour some time ago, but is still somewhat unsafe. It was built by King Walagam Bahu about 89 B.C. From its summit one obtains a fine view of Anuradhapura and the surrounding country. The chapel on the western side shows some fine carving, especially a large seven headed naga or cobra.

Not far from this dagoba, on the south side, is a building in which may be seen (partly restored) a beautiful Buddhist stone railing.

ABHAYAGIRIYA DAGOBA.

(See page 120.)

PLATE XL.

The visitor should next go southwards from the Resthouse along the sacred road, and will soon come to the enclosure round the sacred Bo-tree (p. 65). This grew from a branch of that under which, at Buddha Gaya in North India, Gautama attained his Buddha-hood, and was brought with great pomp to Ceylon (p. 78) in 288 B.C., so that if the present tree be in reality the original one (as to which there is some shadow of doubt) it is about the second oldest tree of which there is any historical record, the oldest being the tree of Confucius, which dates back to 500 B.C. Its platform has been gradually built up, and is now very high, the separate branches of the tree emerging from the soil at some distance apart. The fallen leaves are regarded as sacred relics by pilgrims.

At the entrance to the enclosure is a good moonstone, while the balustrades of the steps are formed of quaint mythical animals, half elephant half crocodile. Inside the grove, in which are several Bo-trees, offspring of the original one, is a statue of Buddha, and several other statues, and many half tame monkeys may be seen running about (p. 19).

Going further south along the Kurunegala road for about half a mile, and turning off to the right across some fields, Isurumuniya Vihara, the most picturesque in Anuradhapura, is reached. It is a rock temple, with a little pool in front of it. The shrine has two terraces, with good steps and janitor stones, while the stone doorway is beautifully carved. The shrine itself has been recently painted. It is worth climbing to the top of the rock for the sake of the view, and a return should be made along the bund of the Tissawewa tank, which is close behind the temple.

MIHINTALE.

The mountain of Mihintale lies about 8 miles east of Anuradhapura along a good road, and there is a Resthouse there (notice should be given). The mountain stands isolated, and is about 1,000 feet high, forming a very conspicuous object. Upon it (p. 78) Mahinda the son of King Asoka is supposed to have alighted and was there met by King Dewanampiya Tissa, returning from a hunt. After a short interview the king was converted to Buddhism, and this was soon followed by the conversion of the queen and about 40,000 of the people, so that before very long Buddhism became the national religion of the country.

The summit is approached on the eastern side by a vast number of steps, said to be as many as 1,840, arranged in four flights. Some distance up the third flight is a path on the left

leading to the remains of an aqueduct near which is a huge stone trough (cf. the stone canoes, p. 119). A little further on there are some steps on the left, which lead to the ruins of a shrine, at the entrance to which are some fine inscribed stones. Half way up the last flight of steps we may turn off to the right and reach the Naga Pokuna (snakes' bathing place), a large bathing tank at the back of which is a fine five headed cobra carved in the rock. There is a good inscription on a rock near the top of this flight of steps.

Finally the Ambustala dagoba is reached. This is said to mark the spot where Mahinda met the king, and to enshrine the ashes of the former. It is built of stone, instead of brick, and has a terrace round it with fine pillars. Yet another flight of steps leads to the Mahaseya dagoba, built over a hair that grew between the eyebrows of Buddha. Leaving the Ambustala in the opposite direction to that by which we entered, we come in about a quarter of a mile to Mahinda's bed, a flat slab under a natural arch in a very pretty situation, with a fine view.

SIGIRIYA.

This wonderful natural fortress lies about $5\frac{1}{2}$ miles from the village of Inamaluwa, itself a few miles east of Dambulla on the Trincomalie road, and may be reached by cart or bicycle from Dambulla; the road is also practicable for motors. There is a Resthouse at the foot of the rock, but notice of arrival must be given.

Beside a little irrigation tank there rises to a height of about 400 feet (Plate XXIV) a wonderful isolated cylindrical rock, upon the summit of which the parricide King Kasyapa I (p. 80) took refuge, and which in those days must have formed a fortress impregnable to assault, though it might be possible to starve the garrison out. Water was collected in large tanks at the summit, so that thirst was unlikely to aid in its subjection.

For many years nothing was known about the place, though a few adventurous climbers had reached the top, but in 1895 the Archæological Survey began work upon it, and now the ascent has been made comparatively easy by the affixing of iron stairways with handrails. One risk is that of an attack by bees, of which there are many upon the rock, but mosquito curtains may be taken if this is feared, and if attacked it is better to sit still without movement. Ticks, as in all the dry country, are also very troublesome after March, but may be guarded against by the use of puttees and "Bamber-Green" oil.

FIRST FLIGHT OF STEPS AT MIHINTALE.

(*See page 121.*)

Going round below the rock, we soon come to a stone cistern, below which is an Audience Hall, finely cut in the solid rock. From the cistern one can work up the rock, partly by the old staircases, partly by the modern iron ladders. On the first platform are some rooms that have been excavated, and at the sides of the flight of steps leading up from here are the great claws of the lion to which the place is supposed to owe its name (Sinha-giri, the lion rock).

The following description of the excavations upon the summit is given by Mr. Bell:—

"Directly in front, looking south from the vantage ground of the east to west cross bank, stretched below as far as the central pokuna, is so much of the lower area as lies between the rock's north and east edges and the high ridge that occupies the western half of the summit. Most here is comparatively level—the only level portion of any extent in a citadel where terraced arrangement was inevitable from the irregular conformation of the rock's surface. This area was seemingly allotted to court-yards, passages, and side rooms. Half-way a winding staircase of three or four flights of steps—the longest on the rock, and pierced at its head through tall flanking walls—shows the means of direct communication with the upper area to the west. At the side of these stairs is the magnificently carved "gal-asanaya" or granite throne, discovered in 1895.

"On the left, skirting the east edge of the Rock, was a range of minor rooms and passages, doubtless communicating with an outermost corridor, which almost encircled the citadel. This series of side chambers was continued on to near the south end of the Rock, interrupted only at the pond where extra rooms &c., intervene.....

"That part of the ancient citadel lying south of the pond, and east of the high level strip, was laid out in a series of cross-terraces, east and west, varying in width—and falling away southwards. From the pokuna to the foot of the last staircase at the extreme south are seven or eight distinct terraces....The centre is taken up with an open court-yard and passages leading to the pond, and round it, on either side, by stairs and intermediate landings—all admirably planned to suit the physical conditions, and displaying great ingenuity in turning to full account the limited space and surface inequalities of the Rock's summit.

"More than one of these terraces has been curtailed and hideously disfigured by *single-brick walls* of later construction—"patched up into a smoothness and smugness" Ruskin forcibly pronounces "more tragic than uttermost ruin."

"The lowest staircase—at the south-west corner of the Rock—descends with a right angle return to the "watch-cave"

in the perpendicular crag on this side. The southernmost terrace, to the east of these stairs, was clearly dedicated to Cloacina.

"Of the higher level half of the summit I have already spoken, as containing a succession of apartments, rising in tiers northwards.

"The backbone, as it were, of the citadel is found in the paved way, with steps descending ever and anon, that was carried along its axis from end to end, hugging the retaining wall of the upper ridge, and winding with its angles, but for the most part running straight as an arrow. From this "spinal column" branch off, east and west, staircase "ribs," which would render communication between all parts of the citadel easy and rapid; whilst each section was equally well served, by the cunningly designed interconnection of its own component divisions, through a maze of minor passages and stairs.

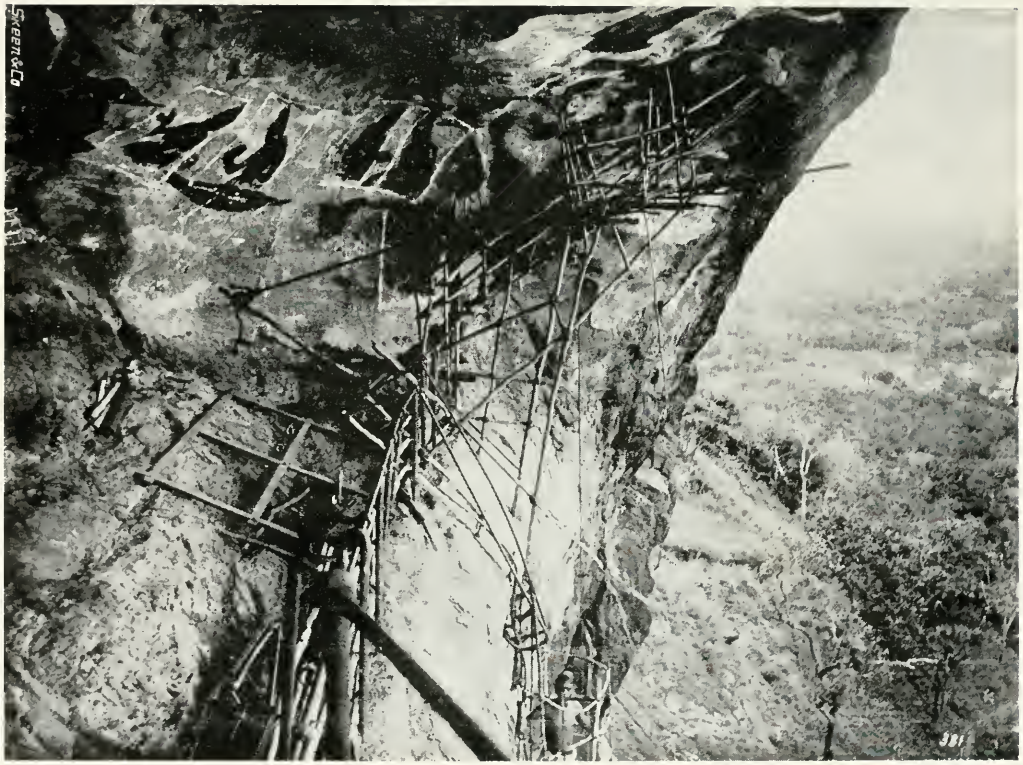
"No less perfectly planned was the *water supply*. The rock-hewn pokuna, nearly 30 yards square, centrally situated and accessible from every side, would suffice, when replenished yearly by the northeast monsoon rains, for ordinary requirements during the ensuing dry months. For drinking water resort was had, in all probability, to two at least of the three smaller cisterns close to the Rock's north, south-west, and south-east edges.

"A word or two regarding the *architectural construction* of the citadel.

"Further lengthening of the deep longitudinal trench, begun last year from the extreme southern verge, confirms the impressions that the foundations were throughout the low-level area, in general, of that form of stonework known as "irregular horizontal," and run down to the rock core. Upon this rested brick walls, vertical or in batter, plain or moulded according to position and purpose, but all alike coated thickly with a tough plaster, white and polished, that has resisted the damp in places to this day. The massiveness of many of these walls bespeaks considerable height originally, despite the fact that the brickwork was almost drylaid and indifferently bonded crosswise. But in "make" these ancient bricks—some a cubit in length—shame most of our modern outturn, being as well burnt as they are sharp and close.

"Of the system of roofing we know nothing beyond the certainty that it was timbered throughout and flat-tiled, in the style familiar among the Anuradhapura ruins.

"A marked feature of the ground plan is the *erratic location of steps*. As often as not, they are pushed aside from the centre of the rooms into which they lead, and relegated to all sorts of odd corners. This vagary was no doubt forced upon



FRESCOES AT SIGIRIYA. (*See page 125.*)

PLATE XLII.

the architects by the unconformable surface of the rock, which had to be reckoned with everywhere.

"But noteworthy, above all, is the *complete absence of monolith pillars and stone-carved doorways*, the most salient characteristic of ancient structures in the island. While quartzous steps and flagstones were lavishly employed to enhance the beauty of this peerless citadel, not one fragment of column, door-frame, or windowsash in *stone* has come to light on Sigiri-gala. Above the floor all was of brick or wood. As for gneiss, with the sole exception of the noble throne above mentioned—like silver in the days of Solomon—"it was nothing accounted of," and finds no place in Kasyapa's citadel.

FRESCOES AT SIGIRIYA.

"The next place to be visited is the gallery, the plaster on the wall of which is still fresh in many parts. High above this is the almost inaccessible picture gallery, reached with much difficulty by Mr. Murray of the Public Works Department. The pictures have been copied in oils by Mr. Perera, the draughtsman of the Archæological Survey.

"The scene intended to be pourtrayed would seem to be *a procession of the queens and princesses* of Kasyapa's court, with their attendants, on the way to worship at the Buddhist

vihara at Piduru-gala, the hill lying about a mile north of Sigiriya. The figures are manifestly all moving in that direction, and the flowers held in their hands by the ladies, and carried after them by servant-maids, can hardly bear any other signification. . . . " (Bell).

POLONNARUWA.

To visit this place is a more arduous undertaking than any of the others, as it is 28 miles from the Trincomalie coach road, and there are no Resthouses, though a bungalow (unfurnished) can sometimes be had (apply to the G. A. at Anuradhapura). The road is a gravel road, and in good enough order from January to March. It passes the great tank of Minneriya (below) one of the loveliest spots in Ceylon, where there is an unfurnished bungalow on the bund, belonging to the Irrigation Department (to whom apply for its use), a beautiful place to stay at were it not for the number of malarial mosquitoes, which are quite likely to bring on a sharp attack of fever unless guarded against with extreme care.

Polonnaruwa became the capital of Ceylon in 769 A.D. and most of the buildings, though very much ruined, are yet in much better preservation than those at Anuradhapura, which are much older and were more exposed to the invaders. They nearly all lie in a line running north from the bungalows, which are themselves near the bund of the local tank, the Topawewa.

The first ruin reached is the kotuwa or fort, more probably a palace, with very thick walls of brick, and to the east of this is a pavilion the stones in the wall of which are very gracefully carved.

About $\frac{1}{4}$ mile further north is what is locally known as the Dalada Maligawa or temple of the tooth, but which appears really to be a temple of Siva (p. 99), and is of very Hindu design. The whole of Polonnaruwa shows much Hindu influence, as indeed is hardly surprising when we remember the intercourse and conquests that had gone on.

North of this lies the Thuparama, a large brick building with a squat tower, and almost opposite this is the Wata Dage or round relic house, a circular building with four staircases, inside which are a ruined dagoba and a broken Buddha statue. Close to this is the Ata Dage, another relic house, and near this is the Gal-pota or stone book, looking rather like a gigantic collection of olas (palm leaf strips, upon which manuscripts were written with a stylus; many may be seen in the Kandy temple, and they are sold to passengers at

JETAWANARAMA VIHARA, WITH KIRI DAGOBA TO THE RIGHT, POLONNARUWA.

(*See page 127*)

PLATE XLIII.

the little shops in the hotel verandahs). The "book" records the deeds of King Nissanga (A.D. 1192), and is said to have been brought from Mihintale.

Close beside this is the Sat-mahal-prasada, a curious seven-storied building, which is still in fair preservation. What exactly was its use is a matter of some doubt.

Half a mile to the north of this lies the Rankot dagoba, which is 200 feet high, and is still in good order, even the statues round the spire being visible. Passing this we come

DEMALA MAHA SEYA.

to the Jetawanarama, a fine building about 150 feet long, at the inner end of which is a brick-built Buddha about 60 feet high. Beside this building is the Kiri (milk) dagoba, about 100 feet high, with a broken spire at the top.

North of this again is the Gal vihara (rock temple), the gem of Polonnaruwa. There is a little shrine cut out of the rock and containing a sedent Buddha, while beside it are three fine stone statues, a Buddha seated, his principal disciple Ananda, and a beautiful recumbent Buddha of great length.

Still another half mile north of this, through a patch of jungle, is the Demala Maha Seya, the ruins of a large building covered with Hindu figures.

To the southward from the bungalows there is nothing of special interest except a fine statue of King Parakrama Bahu, carved from the solid rock, about $1\frac{1}{2}$ miles away. This statue (fig. on p. 80) is well worth a visit, and the walk along the bund of Topawewa tank is pretty.

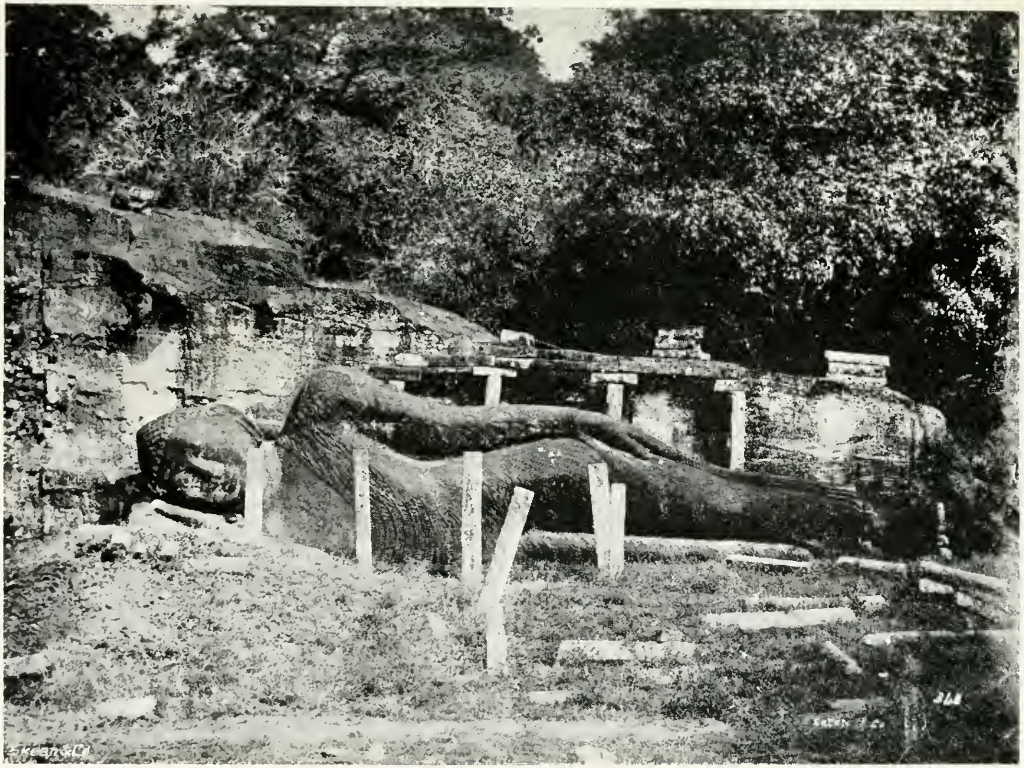
These are the four great centres for the study of the archæology of Ceylon, and with the exception of Sigiriya it will be at once noticed that all these ancient remains are "ecclesiastical." The habitations of the people, even of the kings and nobles, have passed away beyond recovery and one must therefore conclude that they were of a very perishable nature, and that however grand and imposing the sacred precincts of the ancient cities may have been, the parts inhabited by the general mass of the population were not so, but were more akin to similar places at the present day.

One relic of ancient times which is not "ecclesiastical," but which in general is of little interest unless restored, and which is extremely common, is the remains of the old irrigation tanks and canals (p. 74), of which there are literally thousands. In such places as Kalawewa or Minneriya, where the breaches in the old bunds have been filled up, and the tanks thus restored, there are now to be seen some of the most picturesque sights in the island, and every year, as the dead trees which are still standing in the tanks decay and fall, the beauty of these open expanses of water will increase, while as they are at present surrounded by forest, they resemble natural lakes.

KALAWEWA.

A very interesting excursion may be made to this now restored tank, and if leave can be got from the Irrigation Department to use their bungalow, and furniture and supplies be taken, the night may be spent there; otherwise a return must be made to Kekirawa Resthouse, a distance of 8 miles.

Proceeding from Kekirawa, the road rises as the tank is approached and at the foot of a little forest-covered hill on the left, reaches the end of the lake, where, if the visit be timed about the end of the year to get the tank full of water, a fine prospect bursts upon the view, over about 8 square miles of water, with the distant mountains in the background. Almost at once the great sluice of the Yodi-ela (p. 74) is crossed, and a descent should be made to the canal, to realise the enormous



THE RECUMBENT BUDDHA AT POLONNARUWA.

(*See page 127.*)

height of the great bund of the tank, and the size of the stream flowing from it to the minor valleys lower down. Returning to the top of the bund, the road proceeds along it for a couple of miles, and then descends under the ancient spill of the tank, which it will be at once noticed is higher and much shorter than the modern spill which lies beyond it. Upon this old spill stand a number of curious pillars, made in two sections with stone collars at the joints. At the bottom of this hollow the road crosses the stream, which is particularly beautiful, overhung by ancient trees, and as clear as crystal. If the bungalow is not to be used, this is by far the best place in which to breakfast or lunch. A little further on the road rises to the bund of the Balaluwewa, the sister tank, divided from Kalawewa only by a narrow bund, in which is a breach, and upon which is the Irrigation bungalow, in a beautiful and airy situation, commanding a lovely view. The total length of the combined bunds of the two tanks is about 6 miles, and they are about 60 feet high, so that their construction must have meant an enormous amount of labour.

About two miles to the westward of the bund of Kalawewa, and to be reached by walking across the fields, is the Awukuna Buddha, perhaps the finest of all the stone Buddhas in the island. It is carved out of the rock, to which it is attached by ribs of stone, and is about 34 feet high. Every detail of the drapery is still perfect, and the statue is a singularly beautiful one, while from it there is obtained a lovely view.

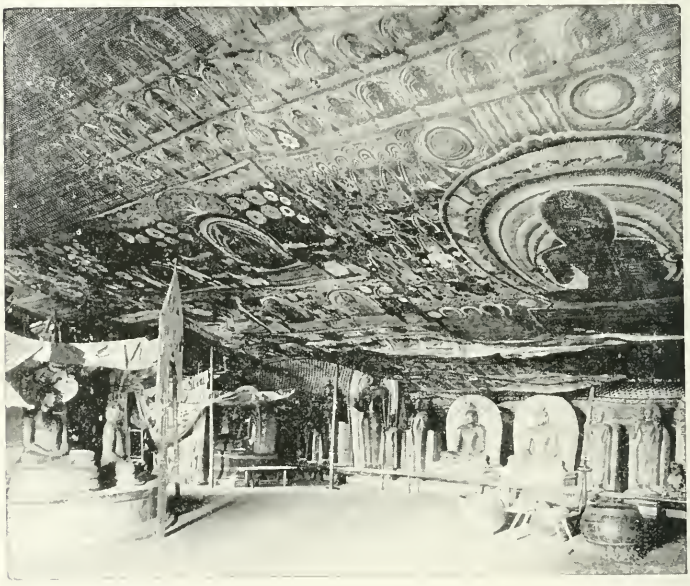
MINNERIYA.

This tank, which has been compared by Tennent to an eastern Killarney, and which is certainly extremely beautiful, lies upon the road from Habarane to Polonnaruwa, and may be reached by a short detour. Though now restored to something approaching its former size, it has always held a fair amount of water, and consequently does not contain so many dead trees as do most of the more recently restored tanks. The view from the top of the great bund is very fine, over many square miles of open water, with wooded hilly promontories and islands, and deep bays, backed by the distant mountains of the district north-east of Kandy.

DAMBULLA.

The striking feature of the place is a vast isolated boulder of rock, with smooth sides, rising to a height of 1,000 feet. Upon this is a fine old rock temple, built in the reign of Walagam Bahu (succeeded 104 B.C.) one of whose many

places of refuge this had been during wanderings of fifteen years while his kingdom was occupied by Malabar invaders. The temple is characteristic of the numerous rock temples which are so common in the Kandyan district, but a good deal larger, and consists of five separate chambers, in which are numerous statues (including a very fine recumbent Buddha, carved out of the rock, and about 47 feet long), while the sloping roof is covered with frescoes, many of which are very old. The old paintings are much finer than the modern ones, which contain too many colours, and are hybridised with other art.



INTERIOR OF ROCK TEMPLE, DAMBULLA.

ALUWIHARE.

About two miles from Matale is another of the resting places of King Walagam Bahu, rendered famous by the fact that after his recovery of the throne of the kingdom he caused an assemblage of Buddhist monks to meet here and transcribe the Buddhist scriptures, which had previously been handed down by oral tradition from Mahinda. It is a fine rock temple in good preservation.

RITIGALA.

Ritigala is the isolated mountain which is so conspicuous to the south-east of Anuradhapura. It is 2,506 feet high, and its summit is worth reaching, for the sake of the magnificent view it commands, over Ceylon from sea to sea, with irrigation tanks, stretches of rice fields, smaller hills (including Sigiriya) &c., spread out below. It may be reached from Habarane Resthouse; and there is an empty bungalow belonging to the Public Works Department (to whom apply for its use) at Galpitigala, at the foot. The water here is unusually bad, and all required should be brought from Habarane. The ascent is fairly hard work, the distance being about 3 miles on the level, past the very pretty tank at Galpitigala, and 2 miles upwards at a steep angle. At the bottom of the hill, overgrown with very fine dry-country forest (p. 63) is a fine pokuna or bathing tank, overlooked by some cave dwellings, while leading upwards from it is a long stone stairway.

The flora of the top of the mountain is specially interesting, for it so high that it gets rain in both monsoons (p. 13), and upon its summit are numerous plants of the "wet" southern mountains, including a number peculiar to the mountain itself.

GADALADENIYA AND LANKATILAKE TEMPLES.

These temples, though old, are in practically complete preservation, and in regular use, and it may therefore seem as if they should not be included under the head of archæology, but as nothing similar is now erected, or seems likely to be erected, it is perhaps better to consider them as also representing the nearly defunct arts of the country.

Of the two, though Lankatilake is the more famous and better known, Gadaladeniya is the more interesting and picturesque, and has the further advantage of being much more easily reached. At a little village named Embilmigama, about 9 miles from Kandy along the road to Kadugannawa, is a turning to Paranagama, along which (it is merely a foot path) Gadaladeniya temple is reached in about half a mile. From thence it is about two miles to Lankatilake, and from thence about 3½, also across country, to Peradeniya Junction Station.

Gadaladeniya stands upon a rounded knoll of rock, and presents a very picturesque appearance from almost any direction. The dagoba is remarkable in having a roof over it, and under it is a small chamber containing a sedent Buddha. Another Buddha is on the right side of it, and yet another in

a chamber at the back, while there are elephants represented all round the walls. Somewhat to the left of the dagoba and behind it is the vihara, while to the right is the pansala (p. 97).

At the entrance to the temple is a moonstone, much worn, while inside is a large gilt Buddha, with fine paintings above, and on the left a little lacquer work cabinet containing a beautiful brass-work dagoba covered by another metal dagoba of rougher make. The temple doors are done in lacquer work. Above the temple, and to be reached by steps at the side, is a dagoba-like shrine, under a roof, from which beautiful views may be obtained.

Lankatilake stands upon a much higher isolated rock, and has a long flight of steps leading up to it, while the temple is larger, and from a distance at any rate more striking. The dagoba is uncovered, and stands to the right of the temple, over whose door is a makara-torana, a group of three fabulous monsters, often to be seen in similar positions over the entrances to Buddhist temples. Within the temple are three large Buddhas and some fine fresco paintings. On the rock to the left of the temple is a great inscription covering many square yards, and behind is the bo-tree.

Chapter X.

GOVERNMENT.*

CEYLON is the richest, and one of the largest, of the Crown Colonies, and has nothing to do with the Government of India, though it is geographically so near to that continent, and has so much in common with it. In such a colony the Crown has the entire control of the legislation, though it is in general entrusted to a local Legislative Council, on which the officials, who are obliged, if required, to vote with the Government on matters not involving religion, are in a majority. The colony, too, is administered by officials who are ultimately responsible to the Secretary of State for the Colonies in London, with whom the Governor of the colony corresponds directly, and from whom he takes his instructions.

The Governor is locally provided with administrative power, and is assisted by an Executive Council of five members—the Colonial Secretary, the Treasurer, the Controller of Revenue, the Officer Commanding the Troops, and the Attorney-General. The Governor, who is locally styled His Excellency, is usually a man who has served in smaller colonial governorships, Ceylon being regarded as the prize of the profession, and is not a man with local training or experience. In this way the introduction of wider and breezier ideas is sought to be effected.

Besides the Executive Council, whose meetings are private, there is a Legislative Council of 17 members- the five of the Executive Council, the Government Agents of the Western and Central Provinces, two other officials, and eight unofficial members, serving for five years from the date of appointment, chosen by the Governor, but in the case of some of the European members usually nominated by the responsible bodies, the Planters' Association and the Chamber of Commerce. These eight members represent the Low-country Sinhalese, the Kandyan Sinhalese, the Tamils, the Mohammedans, the Burghers, the general European Community, the Planters, and the Mercantile Community.

*The author being in Government employ, this chapter is necessarily reduced to the baldest outline.

The orders of Government are communicated to subordinate officers through the Colonial Secretary—also, like the Governor, usually a man of distinction, appointed from some other colony or post outside of Ceylon—who is the mouthpiece of Government in the Legislative Council, and whose office in Colombo, the Secretariat, is the office of record for the whole colony.

The most important general officers of Government are the Government Agents, or G. As., corresponding to Collectors in India. There is one of these officers for each of the nine provinces, and in the larger and more populous provinces there are usually Assistant Government Agents at one or more of the minor towns, the capitals of districts, such as Matale or Trincomalie. The Government Agent is the head of his province, and is responsible for collecting the revenue at his office, which is known as the kachcheri. He must make constant tours through the province, enquiring into local wants, complaints, &c., and getting into touch with the people. He governs through headmen, who are responsible to one another through various grades, controlling larger and larger districts, up to the Mudaliyars of low country districts, or Ratemahatmayas (R. Ms.) of Kandyan districts.

Above the Government Agents in precedence stands the Controller of Revenue, while below them is the graduated series of the Civil Service, some 80 men in all, ranging from Assistant Government Agents down to the Cadets or newly joined civilians, recruited by public examination (the same examination as for the Indian and Home Civil Services) in England. The service is divided into four classes, and the salary goes mainly according to the class in which an officer stands.

Not only is much of the minor government of the country in the hands of the headmen, but the ancient institution of Gansabhawas, or village courts or councils, is kept up. These bodies collect funds by local taxes and are responsible for good order, for the decision of minor cases, and for the improvement of their villages.

A few of the civilians also belong to the judicial branch of the service, but the higher posts in this are mainly filled by professional lawyers, the Chief Justice and some of the Puisne Justices usually coming from abroad. The Supreme Court goes on circuit in the island, and there are District Courts at the chief towns, and many Police Magistrates. The basis of the law in use in the low country is the Roman-Dutch Law, and there are also other codes, such as the Kandyan law. Decrees of the courts are executed by the Fiscal—usually the Government Agent or Assistant—who corresponds somewhat to a sheriff in England.

The lawyers of Ceylon, who are nearly all natives, this being a favourite profession with them, and one in which many rise to eminence, are divided into Advocates and Proctors, who correspond to Barristers and Solicitors in England.

The more special work of the Government, such as demands professional training on the part of those who perform it, is carried out by special departments. Thus the care and construction of roads, bridges, and buildings is the work of the Public Works Department, usually known in Ceylon as the P. W. D.; the surveying of the island generally, and of blocks of land for sale, and attention to the meteorological statistics, is the work of the Survey Department; Education, Railways, Customs, Irrigation, Police, Prisons, Forests, Post Office, Printing, Stores, Museum, all have their own departments, whose work is sufficiently indicated by their title. The agricultural work is done by the Royal Botanic Gardens, aided by the Ceylon Agricultural Society. Some of these departments, *e.g.* the Post Office and the Customs, are controlled by civilians, but most are under heads professionally trained in the particular kind of work performed.

Local self-government has not as yet progressed very far, in a country unused to such things, but there are elective Municipal Councils in Colombo, Galle, and Kandy, and Local Boards in minor places, while Provincial District Road Committees manage the minor roads.

The Revenue in 1906 was Rs. 35,030,661
The Expenditure ,, ,, ,, 32,644,215
The Public Debt ,, ,, ,, 72,719,095

The estimated population at the middle of 1906 was 3,968,541.

PART III.—DESCRIPTIVE.

Chapter XI.

THE ROADS.

THE object of the present chapter is to give such a brief description of the roads as may be useful to travellers. To describe them in detail would occupy too much space and has already been done in "Fyers' Itinerary."

Travelling along Ceylon roads has been rendered easy by the establishment of furnished Resthouses at every 14 miles or so. At these, if notice be given, the traveller can usually get all that he requires, on payment of about Rs. 6 to Rs. 10 a day. If beds, linen, food, or other necessaries be taken the cost is reduced.

The roads in Ceylon vary in quality. First class roads, such as those uniting most of the towns, are usually in admirable condition and motors can travel on them with ease. The minor gravelled roads are not usually suitable for motor traffic, however, the bridges (if any) not being strong enough.

Tolls are demanded at intervals of ten to twenty miles. The toll station has usually a bamboo standing up beside it, which can be drawn down to block the road. The general toll for a four-wheeled vehicle is 60 cents.

1. COLOMBO TO KANDY

via Kegalle, 72 miles.

Crossing the Kelani-ganga by the Victoria Bridge, the road turns to the right, and runs through a densely populated district, houses and mixed gardens (p. 49), with occasional glimpses of paddy fields (p. 43) alternating all the way past **Mahara** Resthouse (8½ m.) to the turning to the left at 17 m. for **Heneratgoda** Resthouse and Railway Station (2¾ m.). Gradually the population becomes less dense; at 25¼ m. is a turning to the left for **Veyangoda** Resthouse and Railway Station (2½ m.). Further on the road gets into prettily

wooded hilly country (**Ambepussa** Resthouse 36½ m.), and presently Kegalle hill, a long hollow-topped ridge with a precipitous left-hand end, appears ahead, and the road from Polgahawela Railway Station and Resthouse (7¼ m.) enters on the left. At 49 m. we come to the long village street of **Kegalle**, with Resthouse, Post and Telegraph Office, &c. From the Resthouse it is 7 m. to Rambukkana, 12 m. to Pindeniya, 16 m. to Bulatkohupitiya. On leaving Kegalle the Castle Rock, a lofty conical hill with a group of rocks at the summit which look very like a ruined castle, appears in front. This was for some time the refuge of the bandit Sardiel, who was captured in 1864. **Mawanella** village and Resthouse are passed at 56 m., and the road then ascends the Kadugannawa

A ROADSIDE BOUTIQUE.

pass, coming out below the railway near Sensation Rock. It enters Kadugannawa by the monument to Major Dawson, the builder of the road, at a height above sea level of 1,698 feet, and then runs down a shallow valley to the village of Iriyagama, where it crosses the Mahaweli-ganga by a fine three-arched stone and iron bridge, passes the Peradeniya Botanic Gardens on the left, and enters Kandy through the Katukelle suburb. There is a Resthouse at **Peradeniya**.

Chief Branch Roads from the above.

(1) at 17 m., to the left, a good gravel road to **Heneratgoda** Station and Resthouse, $2\frac{3}{4}$ m.; branch road on left at $3\frac{1}{2}$ m., a little past the paddy fields, to the Botanic Gardens (worth a visit; see under Heneratgoda in "Towns"); Asgiriya village, with temple on summit of rock, 4 m.; **Minuwangoda** village and Resthouse $10\frac{1}{2}$ m.; **Negombo**, large coast town with Resthouse $19\frac{1}{4}$ m.

(2) at $24\frac{3}{4}$ m., to the left, good road to **Veyangoda** Station and Resthouse $2\frac{1}{2}$ m., **Minuwangoda** Resthouse $11\frac{1}{4}$ m., and **Negombo** Resthouse 20 m.

(3) at $24\frac{3}{4}$ m., to the right to **Ruwanwella** Resthouse 15 m.

(4) at $27\frac{1}{4}$ m., to the left to **Mirigama** Resthouse 9 m. **Giriulla** Resthouse 14 m., **Narammola** Resthouse $23\frac{1}{2}$ m., **Kurunegala** Resthouse 35 m. Motors must go *via* Kegalle.

(5) at $36\frac{3}{4}$ m., to the left, minor road, ferried over the Maha-oya, past Alawwa Station to **Polgahawela** Station and Resthouse, 10 m., **Kurunegala** Station and Resthouse $21\frac{1}{4}$ m.

(6) at 47 m., good metalled coach road, suitable for motors, to **Polgahawela** Station and Resthouse $7\frac{1}{4}$ m., **Kurunegala** Station and Resthouse $18\frac{1}{2}$ m.

(7) at $47\frac{1}{4}$ m., to right to **Bulatkohupitiya** Resthouse 15 m. and **Ruwanwella** Resthouse $23\frac{3}{4}$ m.

(8) at 56 m., (Mawanella) to the left a metalled road to **Rambukkana** Resthouse and Station, $10\frac{1}{2}$ m.

(9) at 56 m., to the right, a metalled road to Aranayaka (for Dolosbage) $8\frac{3}{4}$ m.

(10) at 68 m., on the near side of the Peradeniya Bridge, the road to Gampola and up-country (below), and on the far side of the bridge, to Deltota, 19 m.

2. COLOMBO TO KANDY

via Avisawela, $94\frac{3}{4}$ miles.

Leaving Colombo by the left bank of the Kelani river, the road passes through a densely populated district of mostly mixed gardens (p. 49) by **Kaduwela** Resthouse $10\frac{1}{4}$ m., and **Hanwella** Resthouse $18\frac{1}{4}$ (in a pretty situation near the river.) At $19\frac{1}{4}$ m. is a road to the great Colombo Waterworks reservoir at Labugama, and at **Avisawela** (29 m., Post and Telegraph Office, Resthouse, Station), the main road to Ratnapura turns off to the right (below). At 31 m. is Taldua, with the race-course and club-house of the Kelani Valley Planters' Association (along a minor road to the left), at $33\frac{1}{2}$ m. Dehiowita Station, at 39 m. Karawanella Station and on the other side of the Kelani, which is crossed here, a road to

Ruwanwella on the left, while at 42 m. we reach **Yatiyantota** (Resthouse, Station, Post and Telegraph Office). Beyond this the road passes through pretty hilly country, planted with tea and rubber, and begins to ascend past **Kitulgala** Resthouse 54½ m., up the Ginigathena pass, with fine views on the right, to the summit (2,168 feet) at Ginigathena, where the up-country road (below) goes off to the right, while the Kandy road turns to the left along the valley to **Nawalapitiya** (Hotel, Station, Post and Telegraph Office, road to Dikoya) 71¼ m., **Gampola** 82 m. (Resthouse, Post and Telegraph Office, road to Ramboda and Nuwara Eliya), **Peradeniya** bridge 90¾ m. (p. 137) and **Kandy** 94¾ m.

Chief Branch Roads from the above.

(1) at 19¼ m., to the right, to Waga Station, 2 m. and Labugama reservoir 6½ m.

(2) at 29 m., (Avisawela) to the right, main road to Ratnapura, &c. (below).

(3) at 38½ m., to the left, to **Ruwanwella** Resthouse 2 m.

(4) at 63½ m., to the right, to Dikoya, &c. (below).

(5) at 71¼ m. (Nawalapitiya), to the left, to Dolosbage.

(6) at 71¼ m., to the right, to Dikoya, &c. (below).

(7) at 82 m. (Gampola) to the right, to Nuwara Eliya (below).

(8) at 90¾ m. (Peradeniya) to the left, to Colombo (above).

3. COLOMBO TO PUTTALAM

via Negombo and Chilaw, 80¼ miles.

Cross by the Victoria Bridge over the Kelani. The road passes through mixed gardens, coconuts, and cinnamon to **Jaela** Resthouse 12½ m. Beyond Niripitiwela, 17 m., there is a Buddhist temple; at 20½ m. is the road to Veyangoda on the right (p. 138), after which we turn to the left for **Negombo** Resthouse, Post and Telegraph Office &c., 23 m. Roads to Heneratgoda, Veyangoda, Mirigama, and Kurunegala. Large town; steamers to Colombo. The road then passes through coconut country to **Marawila** Resthouse 36¼ m. At Madampe, 40¼ m. is a road to Kurunegala on the right; **Chilaw** Resthouse 47¾ m. (large place, Post and Telegraph Office). The road then goes on through more and more thinly populated country to **Battulu-oya** Resthouse 59¾ m., **Maturankuli** Resthouse 71¾ m. and **Puttalam** Resthouse 80¼ m. (Post and Telegraph Office). A sandy coast road, with no bridges, runs on from here to Mannar and Jaffna. Good road to Anuradhapura.

Chief Branch Roads from the above.

(1) Negombo (23 m.) to **Heneratgoda**, see p. 137.
(2) Negombo to **Veyangoda**, see p. 138.
(3) Negombo to **Mirigama**, minor road.
(4) Negombo to Kurunegala, good road, *via* **Badalgama** Resthouse 11¼ m., **Giriulla** Resthouse 23½ m., **Narammola** Resthouse 33 m., **Kurunegala** Resthouse 44½ m.
(5) Madampe (40¼ m.) to Kurunegala, *via* **Galmuruwa** Resthouse 4 m., **Dandagamuwa** Resthouse 10½ m., **Narammola** Resthouse 23 m., **Kurunegala** Resthouse 34½ m.
(6) Chilaw (47¾) to Kurunegala, partly minor road, *via* **Bingiriya** Resthouse 9 m., **Hettipola** Resthouse 19¼ m., **Wariyapola** Resthouse 32½ m., **Kurunegala** Resthouse 46½ m.

4. COLOMBO TO HAMBANTOTA

via Galle, 147¼ miles.

The road runs through the southern suburbs of Colombo, past Mount Lavinia to **Moratuwa** 9¼ m. (large town, Resthouse, Post and Telegraph Office) and **Panadure** 16 m. (large town, Resthouse, Post and Telegraph Office), where the road to Ratnapura (below) branches off on the left. From thence it runs, still through coconuts and mixed gardens, &c., to Kalutara North, and across the wide railway bridge over the estuary of the Kalu-ganga (beautiful view both sides) to **Kalutara South** (large town, Post and Telegraph Office, Resthouse, road to Neboda left). Continuing through similar country it comes to Alutgama, and crosses the Bentota river, where **Bentota** Resthouse is on a promontory on the right, 38½ m. Further on are lagoons with mangrove vegetation (p. 62) and **Ambalangoda** Resthouse 53¾ m. (large town, Post and Telegraph Office), **Hikkaduwa** Resthouse 60½ m. (road to Baddegama left), and **Galle** (Hotel, Post and Telegraph Office) 72½ m.

The road then turns more to the east, along the southern coast, through mixed vegetation, in which the breadfruit is very conspicuous, and past open grassy expanses of citronella grass (p. 63) to **Weligama**, a pretty and prosperous seaside village, with Resthouse 89¾ m. and Post and Telegraph Office, and **Matara** Resthouse (large town, Post and Telegraph Office, station at end of coast line), 99¾ m. At 104 m. is Dondra Head, the southernmost point of the island, with an ancient and celebrated temple, at 111¼ **Dikwella** Resthouse. The country now gets rapidly drier, the rainfall being much

more scanty, and Hambantota the driest place in Ceylon. **Tangalla** Resthouse 122 m., **Ranna** Resthouse 130 m., **Ambalantota** Resthouse 140 m., **Hambantota** Resthouse 147¼ m.

Chief Branch Roads from the above.

Numerous minor roads to the left, up to Panadure.

(1) at 16 m. (Panadure) to the left, the road to Ratnapura (below).

(2) at 28 m. (Kalutara) to the left, road to **Tebuwana** Resthouse 6 m. and Neboda 8½ m.

(3) at 38 m., to the left, road to Moragala.

(4) at 60½ m. (Hikkaduwa) to the left, road to **Baddegama** Resthouse (ferry over river) 7¼ m.

(5) from Galle, roads *via* **Kottawa** Resthouse, 8½ m., to **Udugama** Resthouse 17 m., and *via* **Imaduwa** Resthouse 13½ m., to **Akuressa** Resthouse 23½ m.

(6) from Matara, roads to **Akuressa** Resthouse 12½ m., **Morowaka** Resthouse 28½ m., **Deniyaya** Resthouse 40½ m., and to **Hakmana** Resthouse 15 m.

5. KANDY TO NUWARA ELIYA

via Ginigathena and Hatton, 75 miles.

At 4 m. **Peradeniya** bridge, turn left at far end, past Peradeniya Junction Station, and along a shallow valley, paddy below, tea, rubber and mixed gardens above, to **Gampola** Resthouse 13 m. and **Nawalapitiya** (Hotel) 23½ m. Road to Craigie Lea left. At Ginigathena, 31¼ m. join the road from Colombo (p. 139) and proceed upwards past Watawala 30 m. to **Hatton** 45 m. (Hotel, Post and Telegraph Office, Station). Returning along the same track, turn right to Craigie Lea, 53 m., past Kotagala Station. The road from Nawalapitiya joins here on the left, and turning to the right we come to **Talawakele** Station (Resthouse, Post and Telegraph Office) 59½ m. and proceed through Dimbula, past Lindula bazaars, there turning to the left to Nanu-oya Station 71 m. and up the beautiful Nanu-oya pass, through fine up-country forest (p. 60) to **Nuwara Eliya** 75 m.

Chief Branch Roads from the above.

(1) at 3¾ m. to Deltota, 19 m.

(2) at Gampola, good road to the left, but rather steep and with sharp curves, direct to Nuwara Eliya *via* Ramboda, 34 m.

(3) at Nawalapitiya, good road to the left, direct to Craigie Lea, $19\frac{3}{4}$ m.

(4) at Nawalapitiya, to the right, into upper end of Dolosbage, $10\frac{3}{4}$ m.

(5) at Hatton, to Dikoya and **Maskeliya** (below).

(6) at Craigie Lea, to Nawalapitiya (3 above).

(7) at Lindula, to Agrapatana, good road, $13\frac{3}{4}$ m.

(8) at Nuwara Eliya, to Udapussellawa, 22 m.

6. KANDY TO NUWARA ELIYA

via Nawalapitiya and Craigie Lea, 62 miles.

As last to Nawalapitiya, turn left, and upwards to Craigie Lea $43\frac{1}{4}$ m. and then as last.

7. KANDY TO NUWARA ELIYA

via Gampola and Ramboda, 47 miles.

As before to Gampola, then turn left across the Mahaweliganga to Pussellawa $22\frac{1}{2}$ m. and **Ramboda** Resthouse $33\frac{1}{2}$ m.; then up the Ramboda pass, by waterfalls and with beautiful views, to **Nuwara Eliya** 47 m.

Chief Branch Roads from the above.

(1) at $16\frac{1}{4}$ m. to Pupuressa, $9\frac{1}{2}$ m.

(2) at 32 m. to the right, to Pundalu-oya and Watagoda Station.

8. KANDY TO KURUNEGALA AND PUTTALAM

$79\frac{1}{2}$ miles.

Leave Kandy along Trincomalie Street to Katugastota Bridge $2\frac{1}{2}$ m. and to **Galagedara** Resthouse 11 m., down the pass to **Kurunegala** Resthouse $25\frac{1}{2}$ m. (large town, Station, Post and Telegraph Office), and straight on past **Wariyapola** Resthouse $39\frac{1}{2}$ m. (minor road to Chilaw, left), Padeniya 42 m. (road to Anuradhapura right), **Nikaweratiya** Resthouse $50\frac{1}{2}$ m. to **Tonigala** Resthouse 65 m., where is a little tank, with large masses of rock, and a fine inscription. At the top of Paramakanda (path) is an ancient ruined dagoba, with a fine view, and under the rock is a rock temple with a large recumbent Buddha, **Puttalam** Resthouse $79\frac{1}{2}$ m.

THE APPROACH TO NUWARA ELIYA BY THE RAMBODA ROAD.

(See page 142.)

Chief Branch Roads from the above.

(1) at Kurunegala, to **Dambulla**, right, 35½ m. (below)
(2) at Kurunegala, left, to **Polgahawela** 11¼ m.
(3) at Kurunegala, left, to **Negombo** and **Colombo** 58 m.
(4) at Wariyapola, minor road to **Chilaw** 32½ m. (p. 140).
(5) at Padeniya, 42 m. right, to Anuradhapura 46½ m. *via* **Balalla** Resthouse 10½ m. and **Galgamuwa** Resthouse 25¼ m.

9. KANDY TO JAFFNA

via Matale and Anuradhapura, 207 miles.

Leave by Trincomalie Street, over Katugastota Bridge across the Mahaweli-ganga, and turn to the right. Branch to the right to Panwila, &c. Going down a rather steep hill, we come to **Matale** Resthouse 16¼ m. (large village, Post and Telegraph Office, terminal Station, elevation 1,208 feet). Proceeding through the long bazaar, the road turns slightly to the right at the far end through tea, cacao, and rubber estates to **Nalanda** Resthouse 30½ m. and then passes into "dry" and thinly inhabited country (p. 15) through chenas and forest to **Dambulla** Resthouse 45 m. There is a famous rock temple here (p. 129). Beyond this the road crosses the Mirisgoni-oya and turns to the left (road to the right to Trincomalie) through forest and chena and by tanks and paddy fields to **Kekirawa** Resthouse. Just before reaching the village there is a fine view of Ritigala mountain (p. 131) on the right. Road to left to Kalawewa (p. 128). Maradankadawela 65½ m.; road on right to Habarane. **Tirappane** Resthouse 71¾ m. and at 75¾ m. (Galkulam) turn to the left (the direct minor road runs to Mihintale) for **Anuradhapura** Resthouse 85¾ m. In entering the town the Abhayagiriya Dagoba towers up on the right, and the ruins of the brazen palace are on the left of the road (p. 117).

Leaving by the same road, and turning off to the left, we rejoin the direct road *via* Mihintale at Rambewa and arrive at **Madawachchiya** Resthouse 103 m., **Vavuniya** Resthouse 119 m., **Irampaikulam** Resthouse 128¼ m., **Kanakarayankulam** Resthouse 140¾ m. with a pretty tank behind it, **Panikkankulam** Resthouse 151 m., **Iranamadu** Resthouse 162¼ m. and then through sandy scrubby country to the causeway over the lagoon at **Elephant Pass** 174½ m. (Resthouse on the right, on the beach of the lagoon, a very pleasant place to stay in), **Pallai** Resthouse 182¾ m., and then through the densely peopled Tamil country (pp. 64 and 86) to **Chavakachcheri** Resthouse 196 m. and **Jaffna** Resthouse 207 m.

Chief Branch Roads from the above.

(1) at Katugastota, to **Kurunegala** (p. 142).

(2) at Dambulla, right to **Trincomalie** below left to **Kurunegala** below.

(3) at Kekirawa, to the left, to Kalawewa, $7\frac{1}{2}$ m.

(4) at Maradankadawela, right, gravel road, fit for motors, *via* Galpitigala (p. 131) to **Habarane** $15\frac{1}{2}$ m.

(5) at Madawachchiya, to the left, to **Mannar** Resthouse 52 m.

(6) at 147 m. to the right, to **Mullaittivu** Resthouse 30 m.

(7) at $191\frac{3}{4}$ m. (Kodikamam) to the right, to **Point Pedro** Resthouse $10\frac{1}{2}$ m.

(8) at Chavakachcheri, to the right, to Point Pedro 14 m.

(9) at Jaffna, to the right, to Point Pedro, 21 m.

(10) at Jaffna, to the right, to **Kankesanturai**, $11\frac{1}{2}$ m.

10. KURUNEGALA TO TRINCOMALIE

via Dambulla, $103\frac{1}{4}$ miles.

Minor road to Dambulla Resthouse, $35\frac{1}{4}$ m. *via* **Gokarella** Resthouse $11\frac{1}{4}$ m. Afterwards first class road, crossing the Mirisgoni-oya and keeping straight on, past occasional glimpses of paddy fields, mainly through jungle, to Inamaluwa, 40 m., where the road to Sigiriya turns off to the right, **Habarane** Resthouse $50\frac{1}{4}$ m., **Alut-oya** Resthouse $66\frac{1}{4}$ m. At 78 m. the road runs along the bund of the great **Kanthalai** tank (p. 76) to the Resthouse $78\frac{3}{4}$ m., **Tampalakam** Resthouse $88\frac{3}{4}$ m., **Trincomalie** Resthouse $103\frac{1}{4}$ m.

Chief Branch Roads from the above.

At Inamaluwa, $40\frac{1}{2}$ m., to the right, to **Sigiriya** Resthouse $5\frac{1}{2}$ m.

At Habarane, $50\frac{1}{4}$ m. to the left, to Galpitigala (for Ritigala, p. 131) and Maradankadawala, $15\frac{1}{2}$ m.

At Habarane, to the right, gravel road to Minneriya (p. 129) 15 m. and Polonnaruwa (p. 126) 27 m.

11. KANDY TO MATURATA

$38\frac{1}{4}$ miles.

Metalled road, leaving Kandy by Malabar Street, and going downhill to the side of the Mahaweli-ganga, and through a coconut and cacao country, with pretty views of the north-eastern mountain range, to Haragama $9\frac{1}{2}$ m. where it turns off to the right into the Maturata valley, to **Hanguranketa** Resthouse, $17\frac{1}{2}$ m., Padiyapelella, 25 m., and Kurundu-oya $38\frac{1}{4}$ m.

Chief Branch Road from the above.

At $5\frac{1}{2}$ m., to the left, over Gonawatte ferry to the Teldeniya road (below).

12. KANDY TO TELDENIYA

via Katugastota, $15\frac{1}{4}$ miles.

Crossing the Katugastota Bridge turn right to Madawela, 7 m., where again turn right to **Teldeniya** Resthouse $15\frac{1}{4}$ m.

Chief Branch Roads from the above.

(1) at Madawela, to the left, to **Panwila** Resthouse $5\frac{1}{4}$ m. and into the Madulkele planting district.

(2) at Madawela, straight on, to Elkaduwa, $10\frac{1}{4}$ m.

13. NUWARA ELIYA TO BATTICALOA

via Badulla, 143 miles.

Leaving Nuwara Eliya southwards along the side of the lake, the road runs almost continually steeply downhill, past Mahagastota or Baker's Farm, the site of the experiments in farming carried on by Sir Samuel Baker, and Hakgala gardens (see Hakgala in "Towns") 6 m. to the village of Wilson's Bungalow, 12 m. In so doing it passes from a district which is very wet in the southwest monsoon to one which is very dry, and if the journey be made between June and September, the change of climate is often very remarkable (p. 16). At 17 m. we come to **Welimada**, 3,500 feet above sea level (Resthouse), and then the road ascends past Etampitiya to the summit of the pass, 3,900 feet, descends to Dikwella 33 m. and there joins the road from Haputale, entering **Badulla** $36\frac{1}{4}$ m. soon after (Resthouse, Post and Telegraph Office, elevation 2,222 feet). Beyond Badulla the road again ascends to the Debedde gap, 3,717 feet, and descends to **Passara** Resthouse, ($47\frac{1}{2}$ m.) 3,160 feet, below the towering summit of Naminakuli on the right, which has forest (p. 60) at the summit, tea estates below. In much of the valley below, the tea is interplanted with rubber. From Passara the road turns northward along the eastern side of the mountain range, with views to the eastward over the low-country, to **Lunugala** Resthouse $61\frac{3}{4}$ m., 2,400 feet (Post and Telegraph Office, the last before reaching Batticaloa), and soon afterwards descends into the dry and thinly inhabited eastern low-country, and passes through jungle with occasional glimpses of paddy fields,

to **Bibile** Resthouse $72\frac{3}{4}$ m., **Ekiriyankumbura** Resthouse $83\frac{1}{4}$ m., **Kallodai** Resthouse 93 m., **Maha-oya** Resthouse 103 m., **Tumpalancholai** Resthouse 116 m., **Chenkaladai** Resthouse $129\frac{3}{4}$ m., **Batticaloa** Resthouse 143 m.

Chief Branch Roads from the above.

(1) at 7 m., to the right, to Ambewela Station, 5 m.
(2) at Welimada, bridle path to Bandarawela, 10 m.
(3) at Badulla, to the left, to **Taldena** Resthouse, $9\frac{1}{2}$ m.
(4) at Passara, to the right, to **Naminakuli** Resthouse, $5\frac{1}{2}$ m., **Ella** Resthouse, $12\frac{1}{2}$ m. and Haputale-Badulla road $15\frac{1}{2}$ m.
(5) at Passara, to the left, to Madulsima, 7 m.
(6) at Chenkaladai, to the left, to **Kalkudah** Resthouse 11 m. and also to Trincomalie, (minor road, many ferries), 90 m.

14. AVISAWELA TO BADULLA

via Ratnapura and Haputale, 107 miles.

The road runs along below the steep and lofty Adam's Peak range of mountains, by **Pussella** Resthouse, $14\frac{1}{2}$ m. to **Ratnapura** Resthouse $26\frac{3}{4}$ m. (106 feet above sea level) and then rises slightly to **Pelmadulla** Resthouse (408 feet) $38\frac{1}{2}$ m., **Madola** Resthouse 47 m., **Balangoda** Resthouse $53\frac{3}{4}$ m., **Belihuloya** Resthouse 63 m., and then more steeply to **Haldummulla** Resthouse 76 m., (3,388 feet), where there are beautiful views out over the south-eastern low-country, and through tea to **Haputale** pass $83\frac{1}{4}$ m. (Resthouse 4,687 feet, Post and Telegraph Office), where it crosses on to the northern side of the mountain range, and runs along to **Bandarawela** Resthouse, $89\frac{1}{2}$ m. 4,020 feet (end of railway, Post and Telegraph Office), and then down a fine open grassy mountain pass, reminding one of the hills of Dumfriesshire, to **Naula** Resthouse $98\frac{1}{2}$ m., Dikwella and **Badulla** Resthouse 107 m. (2,222 feet).

Chief Branch Roads from the above.

(1) at Ratnapura, to Panadure (below).
(2) at Pelmadulla, to the right, to **Madampe** Resthouse 8 m., **Rakwana** Resthouse 14 m., and beyond into planting district.
(3) at 79 m., to the right, to **Koslanda** Resthouse 6 m., **Wellawaya** Resthouse $22\frac{1}{2}$ m., and on to **Hambantota** $72\frac{1}{2}$ m.
(4) at 96 m., to **Ella** Resthouse 3 m. (see above).

15. PANADURE TO RATNAPURA

35¾ miles.

The road runs *via* **Horana** Resthouse 8¾ m., **Nambapana** Resthouse 19¾ m.

16. HATTON TO MASKELIYA

11¾ miles.

The road runs down from Hatton, through Dikoya village and past the church into the main Dikoya valley, which is full of tea estates. At Norwood the road turns to the right, up over the pass into the Maskeliya valley, also a tea district, and descends through it, with fine view of Adam's Peak in front, to **Maskeliya** village. The Resthouse is some distance beyond this.

Chief Branch Road from the above.

At Norwood, to the left, to Bogawantalawa 10 m.

17. PUTTALAM TO TRINCOMALIE

via Anuradhapura, 112½ miles.

The first Resthouse is **Anuradhapura**, 46¾ m., and then the road runs by the side of Nuwarawewa (tank) to **Mihintale** Resthouse 54¾ m., **Kahatagasdigiliya** Resthouse 67¾ m., **Horowapotana** Resthouse 81¼ m. and **Trincomalie** Resthouse 112½ m.

Chapter XII.

THE RAILWAYS.

THE railways in Ceylon have been made in easy stages, the line to Kandy having been opened in 1869, while only 563 miles are open at the present time, 68 of these being on the narrow gauge of 2 feet 6 inches, the rest on the broad gauge of 5 feet 6 inches. It is not our intention to go into any description of the Railway Department or its working, but to give briefly, and with reference to other parts of the book where greater detail may be found, some of the chief points of general interest to be seen from the railway carriage.

Europeans in Ceylon generally travel in the first class, the fares in which are about the same as third class in England. The fares are of course in rupees, but the sovereign is legal tender at 15 rupees.

On arrival at the station, baggage, other than rugs or small parcels, should be booked through to the station at which one is to alight; one hundredweight is allowed free to a first class passenger, and receipts are given for each package, which must be handed over at the alighting station to claim the baggage—the ordinary American system, in fact. The porter who carries and registers the baggage is well tipped with 5 to 15 cents, and visitors should not demoralise them by large tips.

On the day and the up* night trains on the line to Kandy and to Nanu-oya, there are Refreshment Cars, in which meals can be obtained, of good enough quality and moderate price. On the night mails to and from Nanu-oya there are comfortable sleeping cars, fitted with bedding (unlike the Indian arrangements), for which a charge of Rs. 2·50 per berth is made, in addition to the first class fare.

At Maradana, and at several of the more important stations on the main line, there are book-stalls, where novels, &c., may be purchased.

At most of the stations the name is put up in three languages, English at the top, Sinhalese, recognised by the curved letters, in the middle, and Tamil, recognised by the right angles in many of the letters, below.

The times of the principal trains are given but of course there can be no guarantee of accuracy, the times being frequently changed, more especially on the coast line.

* The Ceylon lines are perhaps unique in the fact that on the main line the trains leaving the capital go "Up."

RAILWAY TIME TABLE.

COLOMBO *dep.*	a.m. 7.30	p.m. 2.10	p.m. 9.50								
KANDY *arr.*	11.15	5.55	a.m. 1.50								
MATALE *arr.* (change Kandy)	p.m. 12.27	7.40	8.50								
HATTON *arr.*	1.52	—	5.20								
NANU-OYA *arr.*	3.43	—	7.17								
NUWARA ELIYA *arr.* (change Nanu-oya) ..	4.49	—	8.19								
BANDARAWELA *arr.*	6.40	—	10.40								
ANURADHAPURA *arr.* (change Polgahawela)	1.13	8.20	—								
JAFFNA *arr.* .. do. ..	7.17	—	—								
MARADANA *dep.*	a.m. 7.18	a.m. 7.30	9.55	12.10	2.10	2.30	2.55	4.50	6.30	6.40	8.30
KALUTARA *arr.*	8.50	—	11.45	1.49	3.57	—	4.11	6.14	—	8.4	10.30
GALLE *arr.*	10.58	—	—	4.2	—	—	6.20	—	—	10.10	—
MATARA *arr.*	12.37	—	—	—	—	—	7.50	—	—	—	—
AVISAWELA *arr.*	—	9.55	—	—	—	5.5	—	—	8.55	—	—
YATIYANTOTA *arr.*	—	10.45	—	—	—	5.50	—	—	9.45	—	—

RAILWAY TIME TABLE.

YATIYANTOTA *dep.*	—	5.20	—	7.35	—	—	—	—	3.5	—	—
AVISAWELA *dep.*	—	6.15	—	8.30	—	—	—	—	4.0	—	—
MATARA *dep.*	—	—	—	—	—	7.15	—	11.10	—	—	4.30
GALLE *dep.*	—	—	6.25	—	—	8.55	—	12.40	—	—	6.0
KALUTARA *dep.*	7.15	—	8.39	—	9.15	11.6	12.25	2.53	—	5.10	8.5
MARADANA *arr.*	8.46	8.53	10.5	10.56	11.10	12.43	2.5	4.30	6.29	7.14	9.25
	p.m.					a.m.					
JAFFNA *dep.*	—	—	—	—	—	7.40	—				
ANURADHAPURA *dep.*	—	—	—	7.45	—	2.20	—				
BANDARAWELA *dep.*	5.20	—	—	—	6.45	—	—				
NUWARA ELIYA *dep.*	9.10*	—	—	—	8.40	—	11.50				
	p.m.										
NANU-OYA *dep.*	10.15*	—	—	—	9.40	—	1.20				
	a.m.										
HATTON *dep.*	12.2*	—	—	7.45	11.30	—	3.20				
MATALE *dep.*	—	—	5.50	9.20	12.45	—	4.35				
KANDY *dep.*	2.50*	4.50	7.5	10.30	2.0	—	6.0				
COLOMBO *arr.*	7.5*	9.50	11.5	3.17	5.50	8.30	10.5				

* Except Saturday.

The lines are described below in the following order:—

1. Colombo—Kandy.
2. Kandy—Matale.
3. Peradeniya Junction—Bandarawela.
4. Nanu-oya—Ragalla.
5. Polgahawela—Kangesanturai.
6. Maradana Junction—Matara.
7. do. —Yatiyantota.

See also descriptions of vegetation on pp. 42 seq.

1. COLOMBO TO KANDY

(*right hand side* by far the best.)

Maradana Junction (coast line, and Kelani Valley line trains also start here; book-stall: fast trains do not stop for one hour after leaving here, so get into the Refreshment Car if a meal is desired).

On *left* side of train. On *right* side of train.

Cinnamon gardens (p. 62) and grass on both sides.

Cross road.

Grass fields both sides.

Cross little river.

Cross road and canal (p. 10).

Paddy fields both sides (p. 43).

Cross road, and Kelani river, by long bridge.

On the river rafts of timber, or pada boats (p. 104) may often be seen.

Mixed garden cultivation (p. 49).

Kelaniya Station (tickets collected here on return to Colombo).

Baur's Manure Works.

Cross road.

Mixed garden cultivation and paddy fields.

Hunupitiya Station.

Rifle range for Volunteers.

Mixed garden cultivation (p. 49) and scrub.

On *left* side of train. On *right* side of train.

Paddy fields (p. 43).

Branch line to Mahara quarry, for stone for harbour works.

Ragama cooly camp, where the immigrant coolies (p. 54) are quarantined before going to the estates employing them.

Ragama Station (branch line to Negombo, now under construction, starts here).

Paddy fields and mixed gardens.

Small tea estate (p. 53) with rubber (p. 51) and shade; pond in front of it.

Two cuttings.

School garden, just beyond second cutting (p. 103).

Mixed gardens (p. 49) and paddy fields (p. 43).

Heneratgoda Station; Resthouse; busy district, great depot for supply of firewood to the railway. Road to Negombo (p. 137)

Paddy fields and mixed garden cultivation.

Veyangoda Station (59 feet above sea; fast trains stop; road to Negombo; plantains, &c., sold on platform). Road to Negombo (p. 138) and Ruwanwella (p. 138).

Cross main street of the village.

Coir mills (p. 48).

Paddy fields (p. 43), coconut plantations (p. 47), &c.

Railway begins to reach the foothills, and patches of forest (p. 37), characterised by many climbing plants, appear.

Mirigama Station (164 feet above sea) Resthouse.

Mugurugampola school, and garden (p. 103).

Street of Mirigama.

Mixed gardens, coconuts and paddy fields.

On *left* side of train. On *right* side of train.

Quarry.

Scrub on old chena (p. 37).

Tunnel.

Mixed gardens, coconuts and paddy fields.

Ambepussa Station.

Cutting.

Maha-Oya (river; p. 9).

Cross the river, fine view to right.

Paddy fields and mixed gardens.

Maha-Oya.

Alawwa Station.

Jungle and chena on the hills.

Plantains (p. 50).

Rubber clearing (p. 50).
Pretty view up-stream, where leave Maha-Oya.

Hill with old chena, plantains, &c.

Polgahawela Station (241 feet above sea; Resthouse; book-stall; change for Anuradhapura, Jaffna, &c.; fruit sold on platform; road to Kurunegala (p. 138) and Kegalle (p. 138). Coach to Kegalle.

Double peak of Alagala, round which the railway climbs, ahead.

Plantation of coconuts (p. 47), tea (p. 53), and cacao (p. 58).

Plantains (p. 50).

Arecanuts very common along here (p. 52).

Hills close in to the line.

Rubber plantation on both sides, older trees to right (p. 50)

Plantains.

Stream crossing; pretty view on right.

Rambukkana Station (313 feet above sea; Resthouse; foot of hill; add extra engine; 1 hour to next station; fruit sold on platform).

On *left* side of train. On *right* side of train

Old chena on the hills, and mixed garden cultivation.

Two short tunnels.

Short tunnel.

Deep valley, with rice (p. 43), road, mixed cultivation, plantains and chenas.

Kadigamuwa siding on left. Keep to right of train.

ON THE KADUGANNAWA PASS.

Cacao shaded with Grevillea and Erythrina.

Galvanised iron store on left. Long tunnel.

Valley below with rice and mixed cultivation, chena and rubber on the hills, mountains behind.

KADUGANNAWA PASS, BIBLE ROCK TO RIGHT OF CENTRE.

(See page 153.)

On *left* side of train. On *right* side of train.

Castle Rock (Plate XI) shows here and rest of way up, really a rock, but looking like a ruined castle. It was the refuge of Sardiel the bandit in 1864.

Long tunnel.

Alagala siding, 991 feet above sea.

The railway goes round the conical hill visible ahead to the right.

Bible Rock (Plate XLVII) a flat topped rock with precipitous sides, crowning a hill, now visible for the rest of the way.

Line curves round to the right, affording a fine view of Alagala Peak, from whose precipitous summit (3,371 feet) the last king of Kandy used to hurl prisoners.

Two short tunnels.

Line curves to the left, over "Sensation Rock" where there is a very steep drop for hundreds of feet.
Cacao plantation (p. 58).

Short tunnel.

Grassy valley, full of mana (p. 62) growing on old coffee land (p. 40) recognisable by the paths still visible in it.

Balana siding, 1,405 feet.

Wild plantains common here.

Long tunnel.

Coconuts (p. 47).

Long tunnel.

Steep drop from train.

Hills with chena (p. 37.)

Short tunnel through a rock.

On *left* side of train. On *right* side of train.

High hill; near base the road passes through a hole in a rock. There was a native tradition that Kandy would be subject to invaders who came through a rock and this hole was purposely made in constructing the road.

Short tunnel.

Tea (p. 53) and cacao (p. 58) with Grevillea (p. 66) as shade.

Monument to Major Dawson in the narrow pass at the top.

Kadugannawa Station, 65 miles from Colombo, 1,698 feet above sea. The train divides before reaching the next station, so be sure to be in the Kandy or Gampola carriage as the case may be. This is now Kandyan country (p. 86) and the absence of the comb in the hair will at once be noticed in most of the men.

Rice fields, mixed gardens, tea on some of the hills.

Cross road and stream, then stream again.

Check for division of the train.

Peradeniya Junction Station; line divides, one portion going to Kandy and Matale, the other "up-country" to Gampola, Nawalapitiya, Hatton, Nuwara Eliya and Bandarawela; book-stall.

Cross the Mahaweli-ganga (p. 9) by iron girder bridge; on the left may be seen the fine three-arched bridge opened in 1906 to replace the old single-span bridge of satinwood which was for so long a feature of the place. Immediately behind it, on the right, is the Botanic Garden, and in the background the forest-covered hill of Dedusgala, upon the Government Experiment Station.

Tea estate shaded with Dadaps for green manure.

Tea factory.

Peradeniya (New) Station, 1,572 feet. Resthouse, comfortable, with four bedrooms, about ½ m. off, near the gate of the Botanic Gardens.

On *left* side of train. On *right* side of train.

Village of Getembe, with the Mahaweli-ganga beyond, and hills of Experiment Station.

Bridge over small stream.

Rice fields, mixed cultivation and tea, with Hantane mountains behind.

Kandy Station, 1,602 feet. Change for Matale. Book-stall. Carriages and Rickshaws to hotels. Post Office near Station, in 3 story building on left.

2. KANDY TO MATALE

(right hand side the better.)

Government offices (other than Kachcheri) in three storied building.
Electric Light Works.
Young Womens' Christian Association.
Police Station.
Station Road.
Police Barracks.
Market.
Planters' Association Hall (with tower.)
Ward Street, at right angles to the railway.

Cutting.

Barracks.
Hill Street.
Mosque.

Long bridge.

Cutting.

Mahaiyawa Station, for north end of Kandy, 1,726 feet. Kandy Cemetery.

Cross the great North road.

Rice and mixed gardens (pp. 43, 49.)

Cross Mahaweli-ganga.

Katugastota Station, 1,534 feet.

Cacao (p. 58), mostly shaded by Dadap trees, broken by patches of rice and mixed gardens, or small lots of plantains (p. 50.)

Wattegama Station, 1,620 feet. Roads to Teldeniya &c (p. 145).

On *left* side of train. On *right* side of train.

Hunasgiriya Peak, 4946 feet, shaped like a cap of liberty; jungle near the top, grass and tea, shaded with Grevilleas, below.

Plantations of cacao (p. 58.)

Ukuwela Station, 1,292 feet.

Tea factory. Tea and Grevilleas.

Cacao.

Cross estate road.

Oil palms, with long feathery leaves: the great staple of West Africa, no longer cultivated in Ceylon.

Matale Station, 1,208 feet, Terminus, Resthouse, Post and Telegraph Offices, Coach to Trincomalie.

3. PERADENIYA JUNCTION TO BANDARAWELA

(right hand side to Kotagala.*)*

(left hand side to Watagoda.*)*

(right hand side to Pattipola.*)*

(left hand side to Bandarawela.*)*

Cross the little stream Nanu-Oya.

Tea and rubber, with peeps of hills at intervals. Narrow valley with paddy fields and mixed gardens.

Curve round to left, through a gap in the low hills, paddy fields, hills with tea behind.

Cutting.

Mahaweli-ganga, with bamboos on bank. Mixed gardens between rail and river, with many arecanuts and candle-nuts.

Gampola Station, 1,573 feet. Resthouse, road to Nuwara Eliya (p. 142)

Beautiful view on both sides.

On *left* side of train. On *right* side of train.

Mixed gardens, paddy fields, tea behind.

Ulapane Station, 1,846 feet.

The line now getting into more purely tea country.

Pretty gorge (looking back) with bridge and tea behind. Junction of streams.

Road crosses to the left side of line.

Fine view over old coffee land to the hills.

Nawalapitiya Station, 1,913 feet. Keep to right side of train as far as Hatton. Roads to Dolosbage (p. 139) and Craigie Lea (p. 142)

Pretty view, paddy fields &c.

Cross river.

Train now leaves the characteristic tropical scenery—rice fields, palms and bamboos, and climbs steadily upward, with an extra engine, into the cooler "up-country" districts, at first passing almost entirely through plantations of tea.

Rubber (p. 50), with stream below.

Tea and Grevilleas.

Penrhos estate factory.

Gorge with little stream which is crossed.

Tunnel (look out on left immediately after.)
Waterfall.

Tunnel.

Eucalyptus among tea.

Galboda Station, 2,581 feet.

Fine view down the valley towards Gampola. Train passed at Galboda may be seen running parallel along other side of valley in which station lies.

On *left* side of train. On *right* side of train.

View down the Kelani valley to the west. After 3 p.m., the sun may be seen shining on the sea near Colombo.

Jungle covered hills of the Adam's Peak range in background.

Enter long shallow valley (Ambegamuwa and Lower Dikoya) leading to Hatton.

Watawala Station, 3,259 feet.

River far below.

Tea, shaded mostly with Grevilleas.

Great double curve.

Rozelle Station, 3,742 feet.

Gorge below.
Adam's Peak, recognisable by its sharp conical apex (angle 90°) visible over the other hills.

Cross road.

Hatton Station, 4,141 feet. P. O. on platform. Hotel. Refreshment room on platform. Book-stall. Coaches to Norwood, Bogawantalawa and Maskeliya (q. v.)

Tunnel.

Tea and Grevilleas, Eucalyptus, &c.

Kotagala Station, 4,065 feet. Keep to left of train to Watagoda.

Tea factory.

Church.

Fine view down the valley of the Mahaweli-ganga mainly cultivated in tea.

Splendid waterfall, seen only in short glimpses. The mountain behind with forest (p. 60) is known as Great Western.

On *left* side of train. On *right* side of train.

Tea factory.

Tunnel.

Brown and Davidson's works.

Talawakele Station, 3,932 feet. Resthouse, Post and Telegraph Office. Coach to Agrapatana. Roads see p. 141. Cross river; road bridge on left.

Railway twists upwards through tea estates, backwards and forwards, with very sharp loops, though never crossing itself like the line to Darjiling.

River in gorge below, with little waterfalls.

Cutting.

Factory on other side of valley, passed between Kotagala and Talawakele.

Tunnel.

Watagoda Station, 4,400 feet. Road to Pundalu-oya &c. (p. 142).

Great Western mountain, with forest above the 5,000 feet line (p. 60).

Dimbula valley, the principal tea district, with Adam's Peak peeping over the hills beyond. Mountains at near end of Horton Plains ahead, showing somewhat of a hollowed hat shape; Totapella left, Kirigalpota right.

Nanu-oya Station, 5,291 feet. Change for Nuwara Eliya. Book-stall. Refreshment room. Book sleeping car berths. Road (p. 141).

Tea and shade.
Thin forest.

Cross stream, with pretty view of forest-covered hill on left.

Cutting.

Tea.

Forest, full of nelus (p. 61).

On *left* side of train. On *right* side of train.

Patanas (p. 61).

Forest.

Fine gorge, with forest and beautiful waterfall near its head.

Cross stream by high bridge.

Wooded hills.

Patana.

Cutting.

Wide expanse of patana, showing very clearly the sharp definition against the forest (p. 61). A gully in the patana with Rhododendron trees.

Stream, far side steep and wooded.

Stream in the patana, with numerous Rhododendrons.

Ambewela Station, 5,999 feet. Railway Receiving Office. Road to the Nuwara Eliya—Badulla road (p. 146).

Patana, dotted with Rhododendrons, and with footpath. High ridge of Horton Plains covered with forest, behind. Totapella, the third highest mountain in Ceylon, to the left.

Pretty wooded valley

Two rock cuttings.

Patana with Rhododendrons.

Pattipola Station, 6,200 feet. Resthouse. Path to Horton Plains. Summit level, 6,224½ feet. Keep to the left to Bandarawela.

Tunnel through the watershed, sometimes with very marked change of climate from one side to the other (p. 16).

View over patana country of Uva.

Tunnel.

On *left* side of train. On *right* side of train.

Note the jungle threading out into patana down the hills here (p. 61). The train winds down through the jungle.

Longish tunnel.

Ugly plantation of Australian trees (Eucalyptus) on other side of valley, with railway winding through it; lovely view above.

Bridge, cutting and tunnel.

Ohiya Station, 5,877 feet, Railway Post Office. Shorter but steeper path to Horton Plains, 5 miles. A cool climate in which "temperate" flowers do exceptionally well.

Cuttings. Three tunnels.

Fine views across Uva patanas. The camp at Diyatalawa visible, with red buildings to the right, white to the left.

Eight tunnels.

Villages with paddy fields down in the hollows, looking very picturesque.

Three tunnels (33—35).

Forest.

The line is now coming down again to the 5,000 feet line, and getting within range of the rains that come over the Haputale pass, and tea again appears, mostly shaded with Grevilleas.

Little hut, and then at once a momentary glimpse far down into the south-western low country, for the line is now running along the edge of the mountain range.

Tunnel 36.

View down into the low country for a moment.

Line curves round to the left, and a fine mountain view opens up.

Tea loading station.

Forest.

On *left* side of train. On *right* side of train.

Patana.

Forest.

Tea.

Haputale pass clearly visible ahead.

Haputale Station, 4,855 feet. Resthouse, Post and Telegraph Offices. Very often cloudy, windy, and misty here on the pass. A view down to the southern low country at end of station. Road to Ratnapura &c., (p. 146).

Village, roofs loaded with stones to prevent the sheets of iron blowing off in the monsoons.

Church.

Tea and Eucalyptus. High mountain ridge, with tea on lower slopes and patches of forest above.

Patana.

Cutting.

Patana.

Very short tunnel.

Diyatalawa Station, 4,367 feet.

Camp below, formerly used for Boer prisoners, now a naval, survey, &c., sanitarium. Pretty villages with paddy fields.

Three span bridge.

Tea.

Tunnel 38.

Patana ; note poverty of soil (p. 62).

Bandarawela Station, 4,036 feet. Terminus. Post and Telegraph Offices. Resthouse. Roads to Badulla and Batticaloa and to Colombo (pp. 145, 146). Coach to Badulla, Passara and Batticaloa (see Towns.)

On *left* side of train — On *right* side of train.

4. NANU-OYA TO RAGALLA

via Nuwara Eliya.

This line is on the narrow gauge of 2 feet 6 inches, and also climbs at the very steep angle of 1 in 23, with the most extraordinarily sharp curves. Consequently it is somewhat jerky in the movement of the trains as compared with the main line, and the rate of travel is but slow.

The line winds upwards to Nuwara Eliya (6200 feet) through the beautiful Nanu-oya pass, which after the first mile or two is untouched, and contains fine up-country forest (p. 60). Towards the summit Scrubs Tea Estate is passed through, and then the line comes out above the lake, a pretty view being obtainable on the right towards Hakgala. It then runs between the lake and the racecourse, on the far side of which the large reddish building of the United Club stands, and into

Nuwara Eliya Station, 6,199 feet. Hotels. Carriages Roads to Kandy (p. 141) and to Badulla (p. 145).

The line then runs by patanas (p. 61) and tea estates to

Kandapola Station,

and into the Udapussellawa valley (full of tea) to

Brookside Station, and

Ragalla Station. Resthouse.

5. POLGAHAWELA TO KANGESANTURAI

via Anuradhapura and Jaffna.

Polgahawela Station, (see p. 151).

Mixed gardens, rice, many arecas, old chenas, coconuts.

Potuhera Station.

Similar country, with background of forest-clad hills.

Kurunegala Station. Resthouse, Carriages. Roads to Kandy, Puttalam, Dambulla, Anuradhapura, Colombo, Negombo, Polgahawela.

Similar country; plantains on the hills, and jungle above.

Smooth rock at top of hills.

Paddy fields and old chena.

Wellawa Station.

Old chena, coconuts, paddy, &c.

On *left* side of train. On *right* side of train

Ganewatta Station.

Old chenas.

Maho Station.

Ambanpola Station.

Galgamuwa Station.

Tank.

Old chenas and patches of forest.

Talawa Station.

Talawa tank.

Anuradhapura Station, (wait 20 minutes, refreshment room). Resthouse, Post and Telegraph Offices. Roads to Puttalam and Trincomalie.

Paddy fields; Abhayagiriya and Jetawanarama dagobas (p. 120) in background.

Cross road to Mihintale.

Jungle.

Occasional patches of paddy fields, with the watchers' huts.

Cross Kanadara-Oya.

Madawachchiya Station. Resthouse.

Cross road to Mannar.

Scrub jungle, tanks, &c.

North Road (p. 143)

Vavuniya Station. Resthouse.

Scrub jungle.

Puliyankulam stopping place.

Mankulam Station, for Mullaitivu.

Country gets sandy, with patches of scrubby jungle.

Kilinochchi stopping place.

Paranthan Station.

Jungle still more scrubby and sandy.

Cross lagoon on causeway.

Resthouse.

Elephant Pass stopping place.

Scrubby jungle and sandy patches.

On *left* side of train. On *right* side of train

Palmyras and coconut palms (p. 64) get gradually more common.

Large coconut estate.

Pallai Station. Resthouse.

Palmyras and scrub and paddy fields and coconuts.

Kodikamam Station. Coach to Point Pedro.

Palmyras and coconuts.

Chavakachcheri Station. Resthouse, Post and Telegraph Offices.

Lagoon. Paddy fields.

Navatkuli Station.

Cross lagoon.

Jaffna Station. Resthouse. Post and Telegraph Offices.

Suburbs of Jaffna, mixed gardens, &c.

Kokuvil stopping place.

Gardens and palms.

Vegetable gardens—about 30 tons of vegetables are sent weekly from Chunnakam to Colombo.

Chunnakam Station.

Mixed gardens and palms; note the Jaffna method of irrigation with well sweeps and little enclosures round the plants.

Tellippallai stopping place.

Gardens and palms.

Kangesanturai Station. Resthouse. Terminus. Post and Telegraph Offices. Steamers to Colombo and Trincomalie.

6. MARADANA TO MATARA

via Galle (sea on right).

Lake and dhobies (p. 91) Royal College (p. 101)

Pettah Station, the busiest on the line.

Banyan tree. Y. M. C. A. buildings.

Bathing and dhobies.

Fort Station.

Barracks.

Parade ground. Lake and Galle Face.

On *left* side of train. On *right* side of train.

Slave Island Station.

Cross arm of lake.

New church. Galle Face Hotel.

Colpetty houses. Sea.

Line passes through seaside suburbs of Colombo.

Kollupitiya Station.

Bambalapitiya Station.

Wellawatta Station.

Cross canal.

Dehiwala Station.

Rocks at Mt. Lavinia.

Mt. Lavinia Station. Hotel.

Angulana Station.

Lake.

Lunawa Station. Resthouse.

Moratuwa Station. Post and Telegraph Offices, Resthouse.

Panadure Station. Resthouse.

Canal.

Wadduwa Station.

Jungly coconuts (small proprietors).

Kalutara North Station.

Cross Kalu-ganga river by long bridge.

Pretty view, fishing traps in foreground. Lagoon and sea.

Grassy esplanade.

Fort, with new residence of G. A.

Kalutara South Station. Large town. Resthouse. Post and Telegraph Offices. Road to Neboda.

Lagoon.

Katukurunda Station.

Paiyagala North Station.

Beruwela Light House.

Paiyagala South Station.

On *left* side of train. On *right* side of train.

Maggona Station.

Lagoon. Sea and Beruwela Light.

Alutgama Station. Resthouse.

Cross Bentota river.

Bentota Resthouse.

Induruwa Station.

Paddy fields.

Lagoon.

Kosgoda Station.

Breadfruit common now in mixed gardens.

Balapitiya Station.

Lagoon.

Cinnamon cultivation (p. 62)

Ambalangoda Station. Resthouse.

River.

Lagoon.

Beach jungle with screw pines (p. 62).

Lagoon.

Hikkaduwa Station.

Lagoon with mangroves (p 62), and with little enclosures in which the rotting of the soft tissues between the coir fibres is carried on (p. 48).

Dodanduwa Station.

Big lagoon back a bit; breadfruits between station and lagoon.

Mangroves and river.

Gintota Station.

Galle Station (usually change for Matara; carriages; hotel; Post and Telegraph Offices.)

Talpe Station.

River with coir pits.

On *left* side of train. On *right* side of train.

Ahangama Station.

Much branched papaws along the platform.

River with coir pits.

Weligama Station.

River behind the trees, with mangroves.

Paddy fields with mountain background.

Glimpse of pretty lagoon.

Kamburugamuwa Station.

Weedy mixed gardens and coconuts.

Matara Station. Terminus. Resthouse. Coach to Akuressa and Deniyaya, and to Tangalla and Hambantota. Post and Telegraph Offices.

7. MARADANA TO YATIYANTOTA.

Narrow gauge.

Maradana, see p. 149.

Town and mixed gardens.

Cinnamon and grass.

Cotta Road Station.

Golf Links; pavilion on left.

Cinnamon and grass.

Canal.

Mixed gardens and coconuts.

Nugegoda Station.

Mixed gardens, betel, pepper (p. 52) &c.

Occasional rice fields.

Pannipitiya Station.

Mixed gardens, coconuts and cinnamon.

Paddy fields.

Homagama Station.

Mixed gardens, coconuts, paddy fields, &c.

On *left* side of train. On *right* side of train.

Padukka Station. Whisky and soda &c., for sale.

Country now gets hilly, with pretty views.

Cross river from Labugama reservoir.

Waga Station.

Mixed gardens and coconuts.

Kosgama Station.

Cross river.

Tea.

Puwakpitiya Station.

Tea.

Dagoba (p. 79).

Tea and rubber.

Rubber.

Avisawela Station. Resthouse. Post and Telegraph Offices. Coach to Ratnapura.

Cross river (Sitawaka-ganga.)

Taldua platform. Pretty views.

Tea on hills.

Dehiowita Station.

Karawanella Station, road to Ruwanwella, $2\frac{1}{2}$ m.

Yatiyantota Station. Terminus. Resthouse. Post and Telegraph Offices. Road to Kitulgala, Kandy, and up-country (p. 138).

Chapter XIII.

THE CHIEF TOWNS, VILLAGES, PLANTING DISTRICTS, &c., OF CEYLON, ALPHABETICALLY ARRANGED.

IN this chapter we propose to give a gazetteer of the colony, so that those finding themselves in any town or village, or about to visit it, may know what they may expect to find there. With this end in view, there is given for each place its province, district, road on which it lies, population, elevation above sea, whether it possesses Post or Telegraph Offices, Resthouse, Clubs, Churches, Hospitals, &c.; its institutions, things worthy of a visit, local officials, rates for carriages &c., coaches, rail, or steamers, and so on. No responsibility, of course, is undertaken for the correctness of information *re* times of coaches or trains, or other matters.

ADAM'S PEAK. See Maskeliya.

AGRAPATNA. Central Province, Nuwara Eliya district, near end of cart road from Talawakele, $11\frac{3}{4}$ m. Population 314. Elevation about 4,000 feet. Post and Telegraph Office, Sports Club. Many tea estates. Footpath to Horton Plains, 12 m. Coach to Talawakele, leaves Agrapatna 7-30, arrives Talawakele 10; leaves Talawakele 3, arrives Agrapatna 5-30. Fares Rs. 5, 3·75, 2·50.*

AKURESSA. Southern Province, Matara district, on road from Matara to Morowak Korle. To Galle $23\frac{1}{2}$ m., Weligama 14 m., Matara $12\frac{1}{2}$ m., Kumburupitiya 7 m., Morowaka 16 m., Deniyaya 28 m. Population 615. Post Office and Resthouse. The road to Kumburupitiya is very pretty, and passes several pieces of forest (p. 37), and there are numerous citronella estates in the neighbourhood (p. 63). Coach to Matara, leaves Akuressa 1-25, arrives Matara 3-30; leaves Matara 10, arrives Akuressa 12. Fares Rs. 3, 1·50, 1. Coach to Morowaka and Deniyaya, leaves Akuressa 12-20, arrives Deniyaya 5-0; leaves Deniyaya 8-30 (Saturdays 5 p.m.), arrives Akuressa 1-15. Fares Rs. 10, 5·50, 3.

ALUTGAMA. Western Province, Kalutara district (on south side of river is Southern Province), on main road and

* The three coach fares given are those for Europeans, Burghers and Natives.

railway from Colombo 38 m., to Galle 34½ m. Kalutara 11½ m., Ambalangoda 15¼ m. Road to Moragala 5 m. Population 2,318. Sea level. Post and Telegraph Office, Resthouse. (Bentota, on other side of river, with pleasant sea frontage; a very popular place of resort).

AMBALANGODA. Southern Province, Galle district, on main road and railway from Colombo 53¾ m., to Galle 18¾ m. Alutgama 15¼ m., Hikkaduwa 6¾ m., Baddegama 14¼ m., Elpitiya (small planting district, tea and rubber) 10 m. Population 700. Sea level. Post and Telegraph Office, Resthouse (comfortable, with good and safe sea bathing.) There are good mangroves &c., (p. 62) on the lagoon shores inland.

AMBEGAMUWA. Central Province, Kandy district, about 25 m. from Kandy by way of Nawalapitiya. Planting district, with about 40 estates, mostly of tea, but some also with rubber, &c. Hospital and dispensary at Nawalapitiya. Railway stations Galboda and Watawala. Elevation 1,800—3,000 feet.

ALAGALA. Central Province and Sabaragamuwa Province, about 5-15 m. from Kandy. Planting district, mostly in tea, but with a good deal of rubber, cacao, &c. Hospital at Kandy, dispensary at Kadugannawa. Railway stations Peradeniya Junction, Kadugannawa. Elevation 700—2,700 feet. Alagala Peak (3,300 feet) is a fine object ascending the railway from Rambukkana to Kadugannawa; from its summit the last king of Kandy used to throw criminals.

AMBEWELA. Uva Province. At end of cart road from near Hakgala, 5 m. from Nuwara Eliya—Badulla road. 12 m. to Nuwara Eliya. Elevation 5,999 feet. Railway Receiving Office, Railway Station. Footpath to Horton Plains (not now well kept up; it is better to go from Pattipola), and to Nuwara Eliya 11 m.

ANURADHAPURA. North Central Province (the capital), on main road to the north from Matale. 126½ m. from Colombo by rail, 119 m. from Jaffna. To Trincomalie 65½ m., to Puttalam 46¾ m., to Mihintale 8 m., to Dambulla 41 m. Population (1901) 3,672; now increasing on account of the railway communication, and estimated at 4,675 in 1907. Elevation 296 feet. Post and Telegraph Office, Resthouse with 8 bedrooms, soon to be replaced by an hotel (there is a great run on rooms from December to March, and it is necessary to arrange beforehand). Tennis Club. English and Roman Catholic Churches. Hospital. Climate see p. 15.

For the description of the archæological remains, in which the chief interest in Anuradhapura lies, see p. 117. The visitor should not fail to see, if he has the time, the Brazen Palace,

the Ruwanweli and Thuparama dagobas, the Sacred Bo-tree, Isurumuniya temple (walking back along the bund of the Tissawewa, best about sunset), the Abhayagiriya dagoba (going to the top for the view of the town and country), the Buddhist railing, the sedent Buddha in the northern part of the town, the Jetawanarama dagoba, the King's Palace, and Nuwarawewa tank, (on the other side of the railway; on the bund there is usually a nice breeze, and it is a good place to have afternoon tea) &c. He should also visit Mihintale (p. 121)

Local officials: Government Agent and Assistant; Provincial and District Engineers; Irrigation Engineer; Superintendent of Surveys and Medical Officer. Rates for carriages, first class, one-horse, within Local Board limits, 6 a.m. to 7.30 p.m. Rs. 4 -; six hours Rs. 2 -; half hour 50 cents, one hour Rs. 1 -; every further hour 25 cents. Outside Local Board limits 50 cents a mile. Second class carriage $\frac{1}{4}$ less; night 1 3 more; two horses $\frac{1}{2}$ more.

Trains leave Anuradhapura 7-45 a.m. and 2-20 p.m., arrive Colombo 3-17 p.m. and 8-30 p.m. arrive Kandy 5-58 p.m. and 11-40 p.m. Arrange for breakfast or dinner at Polgahawela Resthouse if going to Kandy.

AVISAWELA. Western Province, Colombo district, on Kelani Valley railway, and road from Colombo to Nawalapitiya or to Ratnapura, 29 m. from Colombo, 13 m. from Yatiyantota, 25½ m. from Kitulgala, 42½ m. from Nawalapitiya, 27 m. from Ratnapura. Population 1,900. Post and Telegraph Office, Resthouse, Tennis Club, Hospital.

Trains to Colombo leave at 6-15, 8-30, 4-0 (week days) arrive Colombo 8-53, 10-56, 6-29; from Colombo leave at 7-30, 2-30, 6-30(week days) arrive at 9-55, 5-5, 8-55. Trains also to Yatiyantota. Coach to Ratnapura &c., leaves 11-0 a.m. 9-30 p.m. arrive Ratnapura 3-0, 5-0 a.m.; leave Ratnapura 10-50 a.m., 9-0 p.m., arrive Avisawela 3-20 p.m., 5 a.m. Fares by day coach, Rs. 7.50, 5.00, 3.00.

BADDEGAMA. Southern Province, Galle district, on the Gin-ganga, and minor road from Hikkaduwa 7 m., Dodanduwa 7 m. Population 2,953. Post Office, Resthouse. C. M. S. Church and Boarding School for girls. A few rubber, sugar, citronella, &c., estates.

BADULLA. Uva Province, on main road from Colombo *via* Haputale to Batticaloa, 136½ m. from Colombo. Capital of Uva, 18 m. from Bandarawela, 12 m. from Passara, 26 m. from Lunugala, 10 m. from Taldena, 36 m. from Nuwara Eliya, 19¼ m. from Welimada. Population 5,924 (6,576 middle 1907). Elevation 2,222 feet. Post and Telegraph Office, Resthouse, Roman Catholic English and Wesleyan Churches, Club Tennis Club, Golf Club, Library, Hospital, Y. M. C. A.

SCENE NEAR BADULLA. *(See page 172.)*

Badulla is a very pretty town, with a pleasant climate, mean temperature 73° (p. 15). Entering by the coach from Bandarawela, there is a fine view across the valley to the lofty peak of Namina-kuli-kanda, 6,680 feet high, the chief mountain on the eastern side of the centre of the island; it is covered with tea estates to 5,000 feet, but there is untouched forest above that. To the left is the hospital, and beyond that, and nearer to the road, the market, while a little further on is a hill, also on the left, on top of which stands the kachcheri. From this there is a pretty view to the north into a short valley with terraced paddy fields. The river, the Badulla-Oya, runs round behind the low hill on the right of this view. To the right, below the kachcheri, is the Resthouse, and to the left St. Mark's Church, built in 1854 in memory of Major Rogers, Assistant G. A. of Badulla, who was killed by lightning at Haputale, and buried at Nuwara Eliya.

Passing between church and resthouse, the road presently turns to the right into the main street, but going to the left round the jail, we come to an old military graveyard behind it, in which is a tombstone all but covered by the growth of a bo-tree over it, in memory of Sophia Wilson, wife of the Assistant Resident and Agent of Uva, who died 24th May, 1817. There are also other old graves here. Passing the mosque and turning to the left, we come out upon the very pretty racecourse, on the left hand side of which is a little garden, formerly kept up as a branch of Peradeniya, now in the hands of the local board, and a pleasant place of resort. The Grand Stand and the Tennis Club are on the far side of the racecourse and there is a pond in the centre of it. Golf, cricket, and croquet are also played here.

At the end of the main street, which can be reached by going up beside the factory on the far side of the course, is a very picturesque Buddhist temple, the Mutiyangane Vihara, with bo-trees, dagoba, &c. A pretty road runs to the right at the end of the main street, passing the Bank of Uva; taking the first turning to the right, we come into the street passing in front of the resthouse, at the top of the hill in which is the Town Hall on the left, then a temple (the Kataragam Dewala) on the right, and the Government Agent's house on the left, facing a little green, on the far side of which is the Post Office.

Local officials: Government Agent and Office Assistant, District Judge, Provincial and District Engineers, Superintendent of Surveys, Provincial Surgeon and Medical Officer.

Rates for carriages: first class carriage, with one horse, from 6-30 a.m. to 7 p.m. Rs. 4, 6-30 a.m. to noon, or noon to 7 p.m. Rs. 2, one hour Rs. 1; every additional hour 50 cents. Second class carriage 1/3 less; two horses 1/3 more.

Coach to Bandarawela leaves 1 p.m., arrives 4-15; leaves Bandarawela 12, arrives Badulla 2-45. Bullock coach leaves Badulla 8-30 p.m., arrives Bandarawela 4 a.m.; leaves Bandarawela 7-30 p.m., arrives Badulla 4 a.m. Fares by horse coach Rs. 6, 4, 2, by bullock coach Rs. 3, 2, 1·50. Coach to Passara and Batticaloa, leaves Badulla 3-30, arrives Passara 5-30; leaves Passara 9-45 a.m., arrives Badulla 12. Fares Rs. 5, 3·50, 2.

BALANGODA. Sabaragamuwa Province, Ratnapura district, on main road from Colombo 83 m. *via* Ratnapura 27 m. and Haputale 29½ m.to Batticaloa. Pelmadulla 15½ m. Haldummulla 22¼ m. Population 1,848. Elevation 1,730 feet. Post and Telegraph Office, Resthouse, Hospital. Many tea and rubber estates in the district.

BANDARAWELA. Uva, at the terminus of the up-country railway from Colombo 160¾ m., and on main road from Colombo 118½ m. through Ratnapura 62½ m. and Haputale 6¼ m. to Badulla 18 m., Passara 30 m., Lunugala 44 m. and Batticaloa 125 m. Footpath to Welimada 10 m. and path to Etampitiya 17 m. Road to Craig Estate, up the hill, with fine views. Population 1,437. Elevation 4,036 feet. Post and Telegraph Office, Hotel or Resthouse. Haputale Bow Club (tennis and social) meets here. Golf Club. Police Court. Roman Catholic and English Churches.

This place is situated in perhaps the most bracing, though not the coolest, climate in the island, and commands splendid mountain views, and it is now on the way to become, with Diyatalawa, close by, the second sanitarium of the colony. It has its dry weather in the southwest monsoon (p. 15), when Nuwara Eliya is wet. The country is nearly all patana (p. 61).

A little way to the north of the hotel is a small lake, from which on the left runs the footpath to Welimada which is quite a pretty walk, and runs through some patches of forest (p. 60) and by paddy fields, and about 5 m. crosses the Uma-oya at a very pretty spot. On the right is the path to Etampitiya, also worth following. About 1 m. it runs steeply downhill, and at this point is a path running off to the right across the patana, which if followed a little way comes to a fine view point, looking down into a little valley containing a village. The road to Haputale is also worth following, and that to Craig commands fine views.

Trains to Colombo at 6-45 a.m., and 5-20 p.m. (dine at Nanu-oya), arriving at 5-30 p.m., and 7-5 a.m. Coach to Badulla, Passara, Lunugala and Batticaloa, leaves 12 noon, arrives Badulla 2-45, Passara 5-30, Lunugala 8-30, Batticaloa 6 p.m. the next night. Leaves Batticaloa 5-30 a.m., Lunugala 7 a.m., Passara 9-45, Badulla 1, arrive Bandarawela 4-15 p.m.

BATTICALOA. Capital of Eastern Province, on the east coast, 243½ m. by road from Colombo, through Ratnapura 187½ m., Haputale 133 m., Bandarawela 125 m., Badulla 107 m., Lunugala 81 m. To Kalkuda (the port of Batticaloa) 20½ m., Trincomalie 99½ m., (road good, and very pretty, but with no bridges, and many large ferries to cross), Kalmunai 23 m., Tirukkovil 45¼ m. Population 9,969 (1901) 10,369 (1907). Post and Telegraph Office, Resthouse, English and Roman Catholic Churches, Club, Library, Y. M. C. A., Friend in Need Society, Wesleyan Central Institution (High School), Planters' Association (there are several coconut estates along the coast, and a commencement has been made in planting under the tanks).

Batticaloa is an old town, having been in the possession of the Dutch and the Portuguese, and close to the Resthouse there is a fine old Dutch fort, erected in 1682. The town lies upon a large lagoon (p. 9), which enters the sea by a narrow mouth some three miles lower down. Cloth weaving is still quite an industry here, and may be seen going on in several places; the cloths are sold all over the island. The district is mainly Tamil (p. 86) and more tidily kept than the Sinhalese parts of Ceylon, the houses being mostly fenced in with cadjan fences (p. 47).

One great source of interest at Batticaloa is the singing fish, which are to be heard in the lagoon on clear nights. The sound is like distant motor horns, and is supposed to come from a mollusc (p. 22). It may be more clearly heard by putting one end of one's stick in the water, the other in the ear.

Coach to Bandarawela leaves Batticaloa 5-30 a.m., Chenkaladi 6-50, a.m., Lunugala 7 a.m. next day, Badulla 1 p.m., arrives Bandarawela 4-15 p.m. Leaves Bandarawela 12 noon arrives Badulla 2-45 p.m., Passara 5-30 p.m., Lunugala 8-30 p.m., Batticaloa 6 p.m. next night.

BENTOTA. See Alutgama.

BOGAWANTALAWA. Central Province, Nuwara Eliya district, at the end of the cart-road from Hatton 11½ m. *via* Norwood 5¼ m., bridle path to Agrapatana 8 m. and to Horton Plains 10 m. Population about 500. Elevation 4,349 feet. Post and Telegraph Office. Club. The district is mainly tea estates (p. 53) but on the Horton Plains side there are jungle and patana (p. 60).

Coach (for Hatton, change at Norwood)-leaves 8 a.m. and 5 p.m., arrives at Norwood 9-30 and 6-30; leaves Norwood 7-25 a.m. and 3-40 p.m., arrives Bogawantalawa 8-45 a.m. and 5 p.m.; different on Sundays. Fares Rs. 3·50, 2·62½, 1·75.

BROOKSIDE. Central Province, Nuwara Eliya district, Uda-Pussellawa planting district, on road and railway (station there) from Nuwara Eliya 10½ m. *via* Kandapola 4 m., to Ragalla. Branch road to Maturata district.

CHAVAKACHCHERI. Northern Province, Jaffna district, on road and railway (station there, from Colombo 236 m. rail) *via* Anuradhapura 103 m. road, 109 m. rail and Pallai 13¼ m. to Jaffna 11 m. Branch roads to Point Pedro 14 m. and Puttur 8½ m. Population 3,813, Post and Telegraph Office, Resthouse. An interesting open air market is held here (cf. Jaffna). Trains to Jaffna at 8-50, 3-45 and 7-35 (half an hour) returning at 7-40, 1-35 and 4-35.

CHILAW. North-Western Province, Chilaw district, on road from Colombo 47¾ m. *via* Negombo 24¾ m. and Chilaw to Puttalam 33 m. Road (partly minor) to Wariyapola on the road from Puttalam to Kurunegala 46½ m., first Resthouse at Bingiriya 9 m. Population (1907) 4,466. Post and Telegraph Office, Resthouse, Catholic Church, Hospital.

Local officials: Assistant Government Agent, District Judge.

Coach from Negombo (q. v.) leaves Negombo 6 a.m. and 11-30 a.m., arrives Chilaw 11 a.m. and 4 p.m.; leaves Chilaw 5 a.m. and 11 a.m. arrives Negombo 10 a.m. and 3-30 p.m. Fares Rs. 5, 3, 2.

COLOMBO. Western Province, capital of the province and the island.

Roads and Railways, see Chapters XI., XII. Coaches to Negombo, Chilaw and Puttalam (q. v.) and Steamers to Negombo, leaving at 6-30 a.m., 7-30 a.m., 1 p.m. and 2-15 p.m. Fare Rs. 1.

Population at census of 1901, 158,093, calculated to 1907, 176,724. The death rate is higher than the birth rate, owing to the number of unmarried men in the town, and the increase of population is due to immigration.

Post and Telegraph Offices in the Fort, and at several suburban places, *e.g.* Slave Island. Telephone Exchange.

Hotels, First-class: Grand Oriental, near the landing jetty; Bristol, a little way up York Street; Galle Face, at southern end of Galle Face walk; Mount Lavinia, about seven miles from the Fort, on the coast. Smaller, but comfortable; Globe, British India.

Clubs. Colombo Club (general, residential) on Galle Face; Prince's Club (social) at end of Racecourse Avenue, near the course, Garden Club (social, tennis, croquet), by the Museum, German Club (social), opposite the Museum, Sports Club, Turf Club (Ceylon), Cricket Club (ground in Torrington Place), Golf Club (links near Borella), Polo Club, Rowing Club, Sailing Club, Kennel Club (Ceylon).

COLOMBO HARBOUR, FROM THE G. O. H., PASSENGER JETTY IN FOREGROUND.

(See page 177.)

Churches. It is impossible to give a complete list in the space available, but the chief, arranged by denominations, are

Baptist, Cinnamon Gardens, services at 8-30 a.m. and 6 p.m.

Church of England, Christ Church Cathedral, Mutwal, services 6 a.m., 7 a.m., 8 a.m., 4 p.m. and 5 p.m.

Christ Church, Galle Face, services 9-30 a.m. and 5 p.m.

St. Michael's, Polwatte, services 6-30 a.m., 7 a.m., 7-30 a.m. and 3-30 p.m.

St. Peter's, Fort, services 8 a.m., 9 a.m., 10-15 a.m. and 6 p.m.

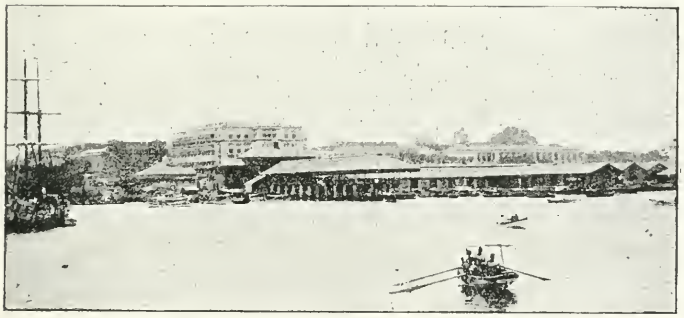
Presbyterian, St. Andrew's, service 9 a.m.

Wolfendahl, services 9 a.m., 1-30 p.m., and 4-30 p.m.

Roman Catholic, St. Lucia's Cathedral, Kotahena, services 7 a.m., 9 a.m. and 5 p.m.

St. Philip Neri's, Pettah, services 7 a.m., 9 a.m. and 5 p.m.

Wesleyan, Kollupitiya, services 8-30 a.m. and 4-45 p.m.



PASSENGER JETTY.

The Approach to Colombo by Sea, Landing, &c. Approaching Colombo by sea, the mountain range, with Adam's Peak conspicuous in it, may often be seen, especially in dry weather and in the morning. The shore appears like a long forest of coconut palms, but if the approach be from the south, the (white) Mount Lavinia hotel at about seven miles away, and the (red) Galle Face Hotel at a mile away, are both very conspicuous. The flashing light, upon a tower in the Fort, is visible for about 15 miles from a ship's deck.

The harbour, which is a purely artificial one, is entered between two of the three breakwaters, within which lies a square mile of smooth enough water. The great south-western breakwater, over 4,000 feet long, with a lighthouse at the outer end, was the first to be built, the foundation stone having been laid by His Majesty the King in the end of 1875. The

island breakwater in the middle is about half a mile long, and the north-eastern about 1,100 feet. The south-western breakwater is a very favourite promenade during the north-east monsoon, but in the south-west is swept by heavy seas, and is unsafe to venture upon (Plate V). Once inside the harbour, the ship is brought to moorings, there being no piers or wharves alongside of which ships can lie. Towards the north-eastern corner of the harbour is a very large graving dock, into which the largest warship can enter, and between this and the passenger jetty is a patent slip for repairing ships up to 1,200 tons in burden.

The steamer once passed by the Port Medical Officer, is usually more or less invaded by tambies or merchants, selling jewellery, curios, &c., or exchanging money. It is much better to buy on shore, rather than pay the extra rates demanded on board, especially as more reliable merchants are generally to be found there. To get ashore one has the

ENTRANCE TO THE HARBOUR.

choice of steam launch (sometimes), jolly boat, or outrigger canoe. The latter are no longer licensed, and will gradually disappear; they are often mistakenly called catamarans by newcomers, but the latter are really the little boats made of three logs of equal size fastened together (the name is simply the Tamil words for "tied logs") in which boys of all sizes come out to dive for money around the steamers. The fare for one passenger to go ashore to the Passenger Jetty is 25 cents. Chairs, rugs, and handbags go ashore free with their owner; small boxes are 15 cents, large 25 cents. Arrived at the jetty, one must engage coolies to carry the luggage to the customs, and thence to a cart, &c. At the Customs one has to pay a small duty on nearly everything except personal clothing and effects. Firearms, on which there is a considerable duty, if not wanted in the island, may be left in bond and reclaimed on going away. The visitor

COLOMBO HARBOUR. (See page 177.)

who has much luggage is recommended to hand it over on board the steamer to Cook's man or to one of the hotel peons, but he must of course be at the Customs Office himself to pass it. Passed luggage may then be taken by the same coolies, for a small fee (6-15 cents a package according to size) to a cart or carriage, or if the visitor be going to the Grand Oriental Hotel, to the hotel which is right opposite the jetty. Guides in dark blue coats with green facings may be engaged here; 50 cents the first hour, 25 cents for each subsequent hour.

Hotels. The Galle Face has the finest situation and the largest public rooms and entrance hall, but the Grand Oriental, familiarly known as the G. O. H. or (to gharry and ricksha men) as the "peria hot-el" is the most convenient and most comfortable—so far as one can speak of comfort in a climate like this—and the Bristol is also convenient, and has an admirable cuisine. The Globe and the British India, also in the Fort, are smaller and cheaper houses, while at Mount Lavinia, seven miles to the south, there is a good hotel, noted for fish tiffins, and standing in a beautiful situation at the top of a crag projecting into the sea. At most of the hotels Ceylon residents are put up on the American plan – so much a day for everything—and visitors intending to stay more than a day or two are recommended to make arrangements on the same lines. Drinks and electric fans are always of course extras. The big hotels are admirably managed, and have every convenience.

What to see in Colombo. The principal things to be seen in Colombo are the Fort, the routes of the tramcars, the Cinnamon Gardens—so-called—the Museum, and a few buildings. Native life, the most interesting phenomenon to a newcomer, is to be seen everywhere. The visitor who intends to spend some time in the interior of the island is recommended to leave Colombo as soon as possible, after a tramway ride or two. On his return he can appreciate the variety of races, dress, &c., much better, after having seen the different races one at a time, and in the same way will far better appreciate the Colombo Museum. The visitor with only a few hours at his disposal is recommended to take both the tramway routes, first of all that to Grandpass and back, and then that to Borella, and if he can find a carriage at Borella, not to return by the car, but to drive through the Cinnamon Gardens to the Galle Face, and along that, visiting the Museum on the way, and finally to walk through the Fort and go on board and change. The visitor with more time at his disposal should alight from the Grandpass car at Armour Street and take a ricksha to Kotahena Temple, St. Lucia's Cathedral

Wolfendahl Church, the Law Courts and Kachcheri. Other interesting drives are along Sea Street (to the north) to Mattakuliya and Grandpass, and southwards to Mount Lavinia (the latter can be done by train). A longer excursion is to Kelaniya temple (below), and railway trips may be made to Mount Lavinia, or if time permits to Kalutara, Heneratgoda, &c.

The Fort. This is the name given to the central business quarter of the town—corresponding to the City in London—and reminds one of the former existence of a fort here, originally built by the Portuguese, constructed on more permanent lines by the Dutch, and now all but destroyed as inconvenient, land being very valuable and the old works of course useless. It consists practically of two streets, York Street running straight up from the jetty, and Queen Street parallel to it to the right, with the various connecting cross streets, viz. the street along the front, between the jetty and the Grand Oriental Hotel, Prince Street, Baillie Street, and Chatham Street. We may briefly describe these in order.

York Street runs up directly from the jetty, where on the left, just outside the building, is a fine marble statue of Her Majesty Queen Victoria, by Wade. On the right is the Grand Oriental Hotel, on the left the buildings of the Victoria Arcade, in which, and in the hotel verandah opposite, are numerous jewellers, and curiosity shops, in which there are now perhaps more articles of Japanese and other foreign make than real Ceylon goods. In the Arcade are the offices of the Peninsular and Oriental Steamship Co., and of Messrs. Thomas Cook & Son, and at the first corner on the left is the National Bank of India. There are also tea rooms at the near end of the Arcade, while opposite the National Bank is the general shop of the Colombo Apothecaries' Co. The supply of European goods, and of articles for the use of Europeans, has in Ceylon fallen into the hands of a few large concerns, and with the exception of engineering and ironmongery requisites, most of the general business of supplying tinned and other foods, books, clothing, drugs, tobacco, wines, spirits, &c., is in the hands of the Apothecaries Co., Cargills, Millers, Thompson Thomas & Co., International Stores, &c.

Crossing Prince Street, Cargills' great general store is on the right, and the Bristol Hotel, with jewellers, &c., in the verandah, on the left. The street is here shaded with fine trees of Pithecolobium Saman, &c. A little further up, Baillie Street runs up a steep hill to the right, and on the left, past the hotel, is the office of the Registrar-General, while opposite are the stores of Whiteaway Laidlaw & Co., and Miller & Co., and then Chatham Street crosses. Beyond it the road runs

down hill to the railway crossing, having the Irrigation Department's offices on the left, and the barracks on the right, and then on into Slave Island.

Turning to the right along Chatham Street—the continuation to the left runs between the Survey Department and the buildings of the Chamber of Commerce to the Fort Station, and then along Norris Road to Maradana &c.,—the street is mostly full of jewellers and other miscellaneous shops, but along towards the Clock Tower are the offices of Messrs. Freudenberg (German Consul, office of Norddeutscher Lloyd) on the right, and Brown & Co.'s engineering and ironmongery store on the left. At the Clock Tower, the summit of which is the Colombo lighthouse, with a triply flashing light, the street crosses Queen Street, and runs towards the sea, past the Globe and British India Hotels, and if followed down, leads to the breakwater, a very pleasant place for a stroll in the evening, except in the southwest monsoon.

Returning to the Clock Tower, the road to the right runs past the barracks on the left, and Cave's store and the officers' quarters on the right, on to the Galle Face Esplanade (below) a pleasant place of resort, with seats at intervals along the edge of the beach. This is the commencement of the coast road to Galle (p. 140) and leads in about 7 m. to Mount Lavinia, where there is a good hotel.

Turning to the left at the Clock Tower, the Mercantile Bank of India is on the left, and opposite to it the offices of the Ceylon Independent, the chief native paper published in English. Just beyond this, on the same side of the road, is the Chartered Bank of India, Australia, and China, and the Hongkong and Shanghai Bank, and Baillie Street, to the right.

Queen Street now passes between the fine building of the General Post Office on the right, and Queen's House, the Colombo residence of the Governor, on the left, and then Prince Street turns off to the right. At the Queen's House gate opposite Prince Street is a fine statue of Sir Edward Barnes, Governor of the colony 1824-31, who did so much for its prosperity, among other things by being a pioneer of planting in the hills (p. 39.)

On the right, beyond Prince Street is the long block of buildings known as the Secretariat, in which are the offices of the Colonial Secretary (p. 134) and other departments of Government, while opposite are the Gordon Gardens, on the site of a former Roman Catholic Cathedral of Portuguese days. At the bottom, the road along the harbour front is again reached, and on the left are the large buildings of the Customs Department, while on the right, before again reaching

the G. O. H., is St. Peter's, which, having been the former banqueting hall of the Dutch Governors, looks like anything but a church.

Prince Street. Starting from York Street, the Apothecaries Co.'s store is on the right, and nearly opposite the French Consulate (office of Messageries Maritimes steamers) then Messrs. Whiteaway, Laidlaw & Co.'s new building, and beyond that the Colombo Library, which is now having to turn out to give more room for Government offices. To the left of York Street the street becomes Main Street, and runs between the offices of the Times of Ceylon on the right, and Walker & Co.'s stores (engineering, ironmongery, motors &c.) on the left, past the coaling sheds into the Pettah (below).

Baillie Street. Starting from York Street the (brownish-coloured) Bank of Madras is passed on the right, immediately facing being the premises of Smith, Campbell & Co., and then the (pale blue) Austrian Consulate, high up on which is a Dutch inscription "DOOR GEWELT GEVELT, DOOR T REGT HERSTELT" (Destroyed by might, restored by right), the story being that the house was pulled down by Vuist, a tyrannical Governor, and restored by his successor. On the left, further on, is the office of the Ceylon Observer.

The Tramway to Grandpass (fare first class 10 cents to Armour street, 20 cents all the way). This starts at the corner of York Street and Main Street, and runs to the left, between Messrs. Walker, Sons & Co.'s Engineering and Ironmongery store, and the offices of the Times of Ceylon, passes the coaling sheds on the left, and the open space of the Young Men's Christian Association grounds on the right, crosses the railway branch to the harbour works, and enters Main Street Pettah, a narrow, somewhat odoriferous, densely crowded street, mainly occupied by the better class of native shops, in which a great variety of things may be obtained at lower prices than in the Fort. On the right, immediately after entering this street, is an ancient Dutch burial ground, now disused, and on the same side, at the other end, is a Dutch belfry, the bell in which is still rung every night to warn tavern-keepers to close. Just beyond this the road opens out a little, in front of the Town Hall, recognised by the numerous little minaret structures on the roof. Behind it are the market buildings, well worth a visit. A few dozen yards up a street which runs diagonally upwards to the right just beyond the Town Hall, is the kachcheri of the Government Agent of the Western Province (p. 134). The car now runs into a much quieter district, first up-hill and then down, and a few native residences begin to appear. At Armour Street rickshaws can be obtained for a visit to Kotahena Buddhist

A STREET IN THE PETTAH.

(*See page 182.*)

PLATE L.

temple, St. Lucia's (Catholic) cathedral, and the old Dutch Reformed Church at Wolfendahl, the Law Courts, &c., but this is better reserved for the return journey (see below for description).

Beyond this point the tramway goes through broader and quieter roads, until it reaches Grandpass, the scene of the last stand of the Dutch against the British. There is a very interesting market here, while a little way down Ferguson's Road to the left is the starting point of the Negombo steamers, which run at 6.30 and 7.30 a.m. and 1 and 2.15 p.m. to Negombo (resthouse), returning at 6 and 7 a.m. and 12.30 and 1.30 p.m., and taking 4 hours on the journey. The route is through the Negombo Canal (p. 10 and Plate IV) into the lagoon at Negombo, and is interesting, but very hot. Fares, first class Re. 1 each way. Down this road, also, before the steamer offices, we come to the great Victoria Bridge, of seven spans, which crosses the Kelani. Two miles the other side of it is the famous Kelaniya Buddhist temple.

Kelaniya Temple. This may be reached by carriage or rickshaw (make a bargain before starting) from the Victoria Bridge (toll) and is one of the most sacred temples in the island. It contains a large recumbent Buddha, and many frescoes, while outside there is a splendid bo-tree. The great festivals are in May, at which time it should be visited after dark. There are also some Hindu images in the temple (p. 98).

St. Lucia's Cathedral, Wolfendahl Church, Kotahena Temple, the Law Courts &c. Returning by the car to Armour Street, rickshaws may be engaged for this round. Proceeding up Armour Street and taking the second turning on the right, St. Lucia's Cathedral may be seen straight in front, on the top of a little eminence, flanked on the right by St. Benedict's Institute for boys, at which some 900 boys receive a good middle-class education, and on the right by the Convent of the Good Shepherd Nuns, who also conduct an English school for girls. The Cathedral was completed in 1904, and can seat 6,000. It is a handsome building in the Venetian Renaissance style, surmounted by a cupola. Going past it, and turning to the left, we soon come to the Kotahena Buddhist temple, one of the principal Buddhist temples in or near Colombo. It contains a large recumbent statue of Buddha, and smaller statues of different persons who at various times have attained to the Buddhahood. Here also are Hindu deities, and a complicated masonry structure in illustration of the Wessantara Jataka, or birth of Buddha as King Wessantara. Returning directly to, and going straight on across, Armour Street, a short distance brings us to the top

of the hill on which stands the old Dutch Reformed Church of Wolfendahl (the valley of wolves—really jackals, which used to be common here), an interesting, but not particularly beautiful structure in the shape of a Greek cross. It contains many mementoes of the old Dutch Governors of Ceylon, chiefly their tombstones (their remains were removed here from the site of what is now the Gordon Gardens in the fort, in 1813), and some fine stained glass windows. The keys are to be got from the sexton, Mr. Sicket, in Hill Street.

From this church a direct road may be taken to the new Law Courts on the hill at Hulftsdorp (named after General Hulft, of the Dutch army, who lived here). They are in Doric style, and accommodate the Supreme Court, the District Court, and the Attorney-General's department. From them a descent may be made down Dam Street between the kachcheri and Wesley College, one of the largest first class schools for boys in the island (now moving into better quarters in the Cinnamon Gardens), to the Town Hall. It is not worth giving up the carriage here to take the tramcar, but a return may be made to the fort in a few minutes. The principal fish market is at the other end of St. John's Road, opposite the Town Hall, and is worth a visit in the early morning or the evening.

The Tramway to Borella (fare 10 cents to Maradana Railway Bridge, 20 cents all the way). Starting at the same point as the Grandpass cars, the cars run up York Street to the next corner, and turn to the left, between the Chamber of Commerce on the left, and the Surveyor-General's and the Public Works Department offices on the right (the P. W. D. office building) to the Fort Railway station (for Mount Lavinia, Kalutara, Galle, &c., see p. 165) and then along Norris Road, with the lake on one side, the Soldiers' and Sailors' Home at the first corner on the left, to the Pettah station. Presently the Royal College (p. 102) appears on the left and then the car leaves the lake, and runs down into a hollow, with the Terminus of the main line on the right (soon to be abandoned and used solely for goods) and the large brick buildings of the Technical College on the left, and then up the hill, and round to the right, into Maradana road, which soon passes the Maradana station (p. 149).

After crossing the bridge, there is a large Mohammedan mosque on the right, and then the headquarters of the police on the left. Policemen may usually be seen drilling here in the cooler parts of the day. This is a very busy and crowded street. Some distance further on, upon the left, is the Theosophical High School for boys, Ananda College, and yet further, on the right, the offices of the Principal Civil Medical

COLOMBO MUSEUM. *(See page 185.)*

Officer, behind which are the Medical College, Hospital, &c. A little further on, to the left, is the Lady Havelock Hospital for women and children, and then we arrive at the Borella terminus, where the long Base Line Road runs across our route, due north and south. If a conveyance can be got here —usually rickshaws at least are to be had—it is recommended to take the following drive, rather than return by the car.

Drive from Borella through the Cinnamon Gardens to the Museum.* Driving southwards (*i.e.* to the right) along Base Line Road, the gate of the General Cemetery is reached in a short distance, and turning to the right here, we soon come to the Lunatic Asylum, where again turn right into Torrington Place. We are here in the outskirts of Colombo, and traces of the cinnamon plantations which gave their name to this suburb may still be seen though the chief cultivation now is grass for sale for horses' food. Torrington Place runs along between the Racecourse and the Cricket Club, with a few handsome bungalows, till it reaches the circular Victoria Park, where a turn to the left leads quickly to the Museum, a large and handsome building in its own grounds, and to which an addition is now being built.

The Museum. The Colombo Museum forms a department of Government, and is managed by a scientific Director. It was completed in 1877, and in front of it stands a fine statue of Governor Sir William Gregory, to whom its erection was due. The ground floor contains the ethnological and mineralogical collections, and the library, while upstairs are the zoological collections. Botanical material is not specially preserved here, but is exhibited at the Museum in the Peradeniya Gardens. The Museum is closed for cleaning on Fridays, and admission is always free. The Director has his office in a small building to the left.

The entrance is by a triple door at the front, and immediately facing one who enters is a horizontal glass case, in which are old betel bags, an ola book and its covers (p. 101), charms and yantras, or olas with diagrams, which are attached to the person or kept in the house, and endowed with "life" by repeating certain charms over them a number of times.

On the right hand of the central door is a case of boat models, in which the sailing canoe (p. 105), the kattumaram or catamaran (p. 178), dhoneys or native trading boats, rafts, pearl fishery boats (p. 24), &c., may be seen. To the right of

*If this drive be started from the Fort, it is recommended to go up York Street and straight on across the railway, with officers' quarters &c., on the right, and turn left into Slave Island (so-called because slaves were once confined here), and up Union Place a little way, then to the right to the shore of the lake and along this to the Public Hall, then out into the circular Victoria Park and round this to the left (longer but prettier) or right to the Museum.

the right-hand door are cases containing coconut products (p. 47) and palmyra palm products (p. 64) respectively and to the left of the left-hand door a case of devil-dancers' masks for treatment of different diseases (p. 98). In this case, too, may be seen a model of the world-wide method of injuring an opponent by sorcery. A model of his body is prepared, and certain incantations performed over it, and then nails are driven into the part to be affected, the name of the victim written on the image, and the latter buried where the victim will pass over it. Also a collection of articles from the Maldive Islands, a group of coral reefs about 350 miles south-west of Colombo, and subject to Ceylon.

Behind the case of charms, &c., is a case containing a large number of images of Buddha in the three attitudes in which he is usually represented—sitting, standing, or lying. Under these are belts, rings, and other ornamental articles, some of them exquisitely worked (p. 109). Right and left of this case are stands of Kandyan spears, walking sticks, &c., done in lacquer work (p. 109).

Turning to the left into the Mediaeval Room, and going round it to the right, the cases contain (1) swords and knives, some very prettily and artistically worked, (2) Kandyan painted pottery, boxes made of calamander wood, a very rare kind of streaked ebony, and of porcupine quills (p. 20), (3) betel boxes and bangles, anklets and swords, (4) chunam boxes (p. 52) and betel nut cutters, some of these very richly ornamented and worked, and on the other side of the room (1) antique objects made in brass or bronze, such as goblets, dagobas, trays, lamps, &c., including a Sinhalese water-clock, in which a copper bowl with a minute hole in the bottom is set floating in water, which enters till the bowl sinks, the levels being shown by silver marks at the side of the bowl. The Sinhalese hour consists of 24 minutes, and the larger clock runs for two of these; (2) a case of old aristocratic dress, worn in the low-country; (3) pendants, necklaces, earrings, &c.; (4) a collection of silver and brass boxes (p. 109); and (5) a fine collection of beautiful ivory work of various kinds. Returning down the middle, there are two cases containing combs, coins, &c.

Entering the Stone Room and turning to the right, there are several carvings of Buddhas, &c., and on the side wall two cases containing models of a Kandyan chief in full dress, a Buddhist monk, a low-country Mudaliyar (p. 134) and a low-country Sinhalese bride, while in the centre of this side is the great stone lion upon which the throne of King Nissanka was placed, 1187-96 A.D. This lion formerly stood in the King's Audience Hall at Polonnaruwa, and was

COLOMBO LAKE.

(See page 185.)

removed to Colombo about 30 years ago, with great difficulty. In the verandah at the end of the building are a number of inscribed stones, and inside, on the end wall, a cast of the great statue of Parakrama Bahu at Polonnaruwa (p. 81 and fig. on p. 80). On the left hand side is a case containing models of Veddahs (p. 87, and Plates XXVI., XXVII.), and in the window a cast of a fine moonstone (p. 118) from Anuradhapura, while to the left of this is a case of keys, copper boxes, and bronze relics from the various ancient places of Ceylon. In the centre, on the left, is the beautiful perforated stone window from Yapahu, about 20 miles north of Kurunegala, where the kings resided in the 13th and 14th centuries (p. 81). Beside this is a fine bronze cauldron from Anuradhapura, and a yantra-gal or square stone with numerous square holes cut in it. In the central cases are relics from Sigiriya, Anuradhapura, &c., and on the ceiling, hanging down, the flags of some of the local divisions of Ceylon.

On the right hand side of the central hall (entrance along the verandah, admission by permit) is the reading room, attached to a library in which is a very fine collection of works upon Ceylon.

Going upstairs, on the walls are hung facsimile copies of the old frescoes at Sigiriya, done by Mr. Perera of the Archæological Survey (p. 125), and at the top the first object come upon is a group showing a leopard attacking a spotted deer, with monkeys above. In the case in the centre is a giant tortoise Turning to the right into the first gallery, and going along it on the right hand side, the cases contain shells, insects, lizards, beetles, and window-pane oysters (p. 34). At the end, turning to the right into the end gallery, there is a case of bats, &c., then flying squirrels, porcupines (p. 20), hares, squirrels (p. 20) loris, &c. Then follow the skeletons of a boar and a buffalo, a case of elk horns (p. 18, and chapter on sport below), pangolin or scaly anteater, dolphin, &c., then mouse deer (p. 19) and a small elephant, then monkeys (p. 19), deer (p. 18), bear (p. 17), and then a case of jackal (p. 19), palm cats, mongoose (p. 19) and otter (p. 20). Then comes a group of sambur (p. 18) and wild boar, with a peacock, then a case of cats and leopards (p. 19), the opening to the front verandah, and a case of flying foxes (p. 17). In the centre of this room are the skeletons of an elephant, and a dugong.

Returning to the gallery first entered, and going along the front of it the cases contain ants, mosquitoes, reptiles, eggs, crabs, barnacles, shells, &c., while the centre cases contain birds, lizards and insects.

Entering the central hall again, and turning to the right, the cases contain birds, sea birds, lizards, and insects.

Passing now into the gallery to the left of the entrance, and going along the right-hand (front of the building) side of it, the cases contain corals, &c., from the pearl banks, and then turning into the cross gallery at the end, the cases are full of fish, corals, zoophytes, sponges, &c., while along the centre are models of fish, &c. Returning to the main front gallery, the cases on the right contain frogs, snakes, insects, venomous animals, shells, &c., while those in the centre of the gallery are occupied by birds, snake skeletons, and insects.

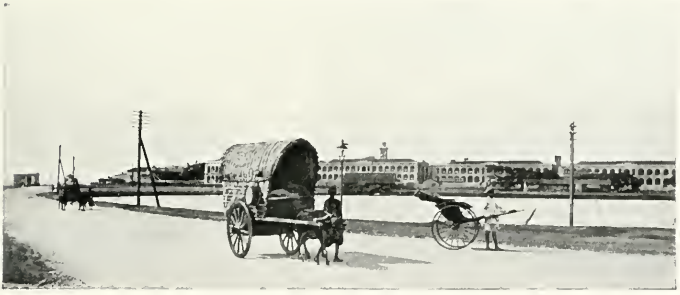
Turning to the left at the foot of the stairs, and going through a passage, the mineral gallery may be found. Among other objects of interest here is a model of a plumbago mine (p. 2).

At the back of the Museum is a small collection of living wild animals of Ceylon.

Drive to the North along the sea front (this is given assuming that the tramway route, and the detour to St. Lucia's, &c., have been followed, but of course they may be combined, if the visitor like to drive the whole way, by driving through the Main Street, Pettah to Armour Street as on the car, then to Wolfendahl, St. Lucia's, and Kotahena temple, and from there to St. Thomas', then as described below back to Armour Street *via* Mattakuliya, and then to the Law Courts and back to the Fort as described above). Leaving by Main Street as on the Grandpass car, and turning to the left so soon as the railway line is crossed, we go along Sea Street where we soon pass some Hindu temples (admission is generally allowed if the shoes be taken off, but there is little to see; cf. Plate XXXV.), go through the Chetty quarter (p. 84,) past Hutson's Engineering Works, and then the road turns uphill past the back of the great new Graving Dock (p. 178) passing Christ Church Cathedral and St. Thomas' College, the great Church of England school. Turning to the left soon after we reach Modara Road, along which are three large Catholic Churches, an indication of the great hold this communion has upon the fisher folk, in whose quarter we now are. Turning to the left after passing St. James' (worth looking into), the second of these, we may go down to the mouth of the Kelani river, where Crow Island is to be seen upon the right, and a long sand spit runs out towards the actual mouth. If it be in the cool of the day, a very pleasant stroll may be enjoyed along this spit, and the fishermen may be seen carrying out various operations peculiar to their craft upon the shore. Returning to Modara Road, and going along it past the third Church, St. John's, the road turns to the right into Ferguson's Road (p. 183), which if followed leads to Grandpass, from which a return may be made by the tramway route as far as

THE BACK OF GALLE FACE PROMENADE.

GALLE FACE.



GALLE FACE, THE BARRACKS.

GALLE FACE AND CLUB.

(See page 189.)

Armour Street, where we turn to the left, and follow the road to Maradana, where, a little beyond the station, we turn to the right into Dean's Road, and follow this down through a native quarter till it comes out at a great crossing of roads in front of the Victoria Eye Hospital. If it is desired to see a piece of the quarter in which the Europeans live, a detour may be made up Ward Place, to the left, otherwise a return should be made down the long, straight, busy road Union Place, at the bottom of which we may turn to the right direct to the Fort, or go straight on past Slave Island Station and then turning to the right, return along the picturesque back of the Galle Face parade, behind the Colombo Club, or keep to the left, and come out at the Galle Face Hotel, and return along the front.

Drive to the South and Mount Lavinia. Leaving the Fort by Queen Street past the Clock Tower, the road comes to the Galle Face, a fine open seaside parade, with seats along the beach. Just before reaching it, the great military barracks are on the left. A red kabuk (p. 2) road runs along the beach, which will be found much pleasanter to drive upon than the macadamised roads. Turning up past the Galle Face Hotel, we turn to the right into Colpetty (Kollupitiya) a crowded native street which leads on for miles to Mount Lavinia (q. v.), where there is a good hotel, but the visitor will likely have had enough of the road before he has gone many miles, and is recommended to take train at Kollupitiya or Bambalapitiya station, go to Mount Lavinia, and return by train to the Fort.

Local Officials. The Government has its headquarters here and there are very many, in almost every department.

Carriage hire. 6 a.m. to 7 p.m. Rs. 4·50; six hours Rs. 2·50; half an hour 50 cents; one hour Rs. 1; every further hour 50 cents. After 7 p.m. $\frac{1}{3}$rd extra; two horses $\frac{1}{2}$ extra. Outside the tolls 75 cents a mile. Hackeries 25 cents first and second half hours, 15 cents each subsequent hour. Rickshaws, single journey in the Fort 10 cents; half an hour 25 cents; second half hour 25 cents; every subsequent half hour 10 cents.

COTTA. An eastern suburb of Colombo, formerly, in Portuguese times, the capital of the kingdom under the native kings.

DAMBULLA. Central Province, Matale district, at the junction of the roads from Kandy 45 m. and Matale 28$\frac{3}{4}$ m. *via* Nalande 14$\frac{1}{2}$ m., and from Kurunegala 35$\frac{1}{2}$ m. to the north, and at the divergence of the roads to Anuradhapura 41 m. and Jaffna and to Habarane 15 m. and Trincomalie. To Kekirawa 14 m., to Minneriya 30 m., to Sigiriya 11 m., to

Topawewa (Polonnaruwa) 42 m. Population 397. Post and Telegraph Office, Resthouse. Supplies procurable to a small extent.

The chief point of interest is the rock, a large isolated block standing up to a considerable height, upon which there is an ancient rock temple (p. 129).

DEHIOWITA. Sabaragamuwa Province, Kegalle district, on the road and rail (station) from Colombo 33½ m. *via* Avisawela 4½ m. and Dehiowita to Yatiyantota 8½ m. Minor road to the Avisawela-Ratnapura road. A number of tea and rubber estates in the neighbourhood. Population 109. Post and Telegraph Office.

Trains to Colombo (3 hours) at 5-46 a.m., 8-1 a.m. and 3-31 p.m.

DEHIWALA. Western Province, Colombo district, on road from Colombo Fort 5¼ m. to Mount Lavinia 1 m. Railway Receiving Office.

DELTOTA. Central Province, Kandy district, at end of cart roads from Kandy and Peradeniya 19 m. Population 658. Post and Telegraph Office, Hospital. The neighbourhood is mostly tea estates.

DENIYAYA. Southern Province, Matara district, at end of cart road from Matara 41 m. and Galle 51¼ m. *via* Akuressa 27¾ m. and Morowaka 12½ m. Population 925. Post and Telegraph Office, Resthouse, Hospital and Dispensary. There are a good many tea and rubber estates in the district.

Coach to Matara, leaves Deniyaya 8-30 a.m. (except Saturdays 5 p.m.) arrives Matara 3-30 p.m. Leaves Matara 10 a.m. arrives Deniyaya 5 p.m. Fares Rs. 13, 7, 4.

DIKOYA. Central Province, Kandy district. About 1 m. from Hatton, on the road to Norwood, Post and Telegraph Office, Hospital, English Church. Dikoya and Maskeliya Cricket Club.

Dikoya is one of the chief planting districts, containing (including the district of Lower Dikoya) about 107 estates, with about 40,000 acres cultivated, almost entirely in tea, of which a vast stretch may be seen from Norwood, mostly shaded with Grevilleas. The valley itself is now, thanks mainly to the shade trees, by no means unpicturesque, but the prettiest part is the upper end, where it runs into Bogawantalawa.

DIMBULA. The village on the road from Craigie Lea to Nawalapitiya, but the planting district extending up to the foot of the Horton Plains range, Hospital. The central meeting place of the planting district is at Radella, not very far from Nanu-oya, where there is a racecourse, Athletic and Cricket Club, &c.

The premier planting district of the island, though perhaps exceeded in size by the Kelani Valley. 126 estates, with about 48,000 acres in cultivation, almost entirely tea, which may be seen in a vast sheet from the railway between Watagoda and Nanu-oya. Railway stations, Kotagala to Nanu-oya, elevation 3,500 to 5,500 feet.

DIYATALAWA. Uva Province, on the rail and road to Bandarawela 3 m. Elevation 4367 feet. Post and Telegraph Offices.

This place, which lies in one of the most bracing climates of the island, was originally a Mission Industrial Institution, which was closed. It was then, after some years, opened as a camp for about 5,000 Boer prisoners, who were guarded by two British Regiments, and for whose accommodation the numerous corrugated iron sheds were put up. Now it is used as a naval sanitarium, as well as by the Survey Department and others, while there are sometimes bungalows to be hired, and with Bandarawela, it will probably grow into an important sanitarium. There is a little forest on the hills above, but the greater part of the place is open sterile patana (p. 61).

DODANDUWA. Southern Province, Galle district, on road and railway (station) to Galle, 8½ m. Baddegama (Rest-house) 7 m. Population 526. Post and Telegraph Offices, Church Missionary Society Industrial School.

DOLOSBAGE. Sabaragamuwa Province, Kegalle district, 8 m. from Nawalapitiya. Elevation of district 2000—4000 feet. Post and Telegraph Offices. Tennis and athletic clubs.

This is a comparatively out-of-the-way planting district, not having a road right through it, but only being approachable from Nawalapitiya for the upper end, from Mawanella or Kegalle for the lower. It contains about 50 estates, making up about 15,000 acres, mostly in tea, but with a good deal of rubber.

DUMBARA. Central Province, Kandy district. The name of the valley of the Mahaweli-ganga east of Kandy, which may be looked over from Lady Maccarthy's Road at Kandy. Roads from Kandy to Teldeniya, &c. Resthouses at Panwila and Teldeniya. 24 estates are in the planting district of Dumbara, with about 8,000 acres in cultivation, of which 5,000 are in cacao (p. 58), with a considerable amount of rubber, coconuts and tea.

ELEPHANT PASS. Northern Province, Jaffna district, on the main road to the south from Jaffna, 32½ m. Stopping place on the railway. There is a great causeway across the lagoon which separates the Jaffna peninsula from the main

land, and the Resthouse lies upon the northern shore of this, with the water lapping up to the verandah, and is one of the pleasantest places at which to stay in the Jaffna country. Lying just upon the edge of the Jaffna peninsula, and in very low-lying, salt soil, there is almost no vegetation there but scrub.

ELKADUWA. Central Province, Kandy district, reached by road from Kandy *via* Wattegama Station, 17¼ m., Post Office, Gymkhana Club. The district is mainly planted in tea.

ELLA. Uva Province, 12 m. from Bandarawela, 3 m. from Naula, 12 m. from Badulla. Village Receiving Post Office, Resthouse. Elevation 3,320 feet.

The Resthouse stands upon a projecting spur, commanding one of the finest views of its class in the island, looking down the Ella pass to the low-country of the south-east, where the sun may often be seen shining upon the salt lagoons near Hambantota. The resthouse is a very favourite spot for excursions from Bandarawela or Badulla, but notice of coming should be given.

GALAGEDARA. Central Province, Kandy district, on the road from Kandy 11 m. to Kurunegala 14½ m. Population 339. Post Office, Resthouse. A few estates of cacao, &c., in the district.

GALLE. Southern Province, Galle district, 72½ m. from Colombo by road and rail, 27½ m. from Matara by road and rail, 23½ m. from Akuressa. Population 37,165 in 1901, 39,624 in 1907. Post and Telegraph Offices, Hotel, the New Oriental, in the Fort, formerly the great passenger hotel in the days when the steamers called at Galle. Club, Tennis Club, Cricket Club, Golf Club, Gymkhana Club, Church of England, Roman Catholic and Dutch Reformed Churches, Hospital, Band of Hope, Young Men's Christian Association, Young Womens' Christian Association, Friend-in-Need Society, Industrial School, Reading Room, Library, Band.

Galle is a very ancient place, and for long was the harbour of call in Ceylon, though in the last thirty years it has been entirely superseded by Colombo. While the main native population lives along the side of the great harbour, and back inland, the business quarter, with the chief shops, the hotel, &c., lies in the Fort, which occupies a tongue of land projecting out into the sea, and which in some ways is one of the most interesting sights in the island. Entering by the main gate, the hotel is round to the left, and immediately in front of it are the ramparts, from which a very pretty view may be obtained over the harbour. The harbour is a very large one, and were a considerable amount of money expended upon blasting away some of the dangerous coral reefs at the

GALLE. *(See page 192.)*

entrance, and a breakwater built to keep out the heavy roll of the south-west monsoon, would be a very valuable port to the island.

Going down to the right from the hotel, an old Dutch Church is passed on the right, and then the Library, while down the road to the left at this point are the old Bell Tower, and the Customs Warehouse, with a fine old Dutch inscription over the door, while the Kachcheri is further along this road and round to the right. Returning to the road first visited, the English Church is further along on the right, and then we pass between quaint old Dutch houses, often of two stories, down to the end of the street, where the ramparts may be again climbed, and turning to the right we pass the Light-house, and may walk round upon the wall of the Fort for a long distance. Most of the streets in the Fort are narrow and somewhat quaint in appearance, and are worth walking through.

In the town there is a Dutch burial ground, and a pretty seaside park near to the Fort, while the drive out to Wakwella, where there is a resthouse in a very pretty situation, is worth taking, the distance being about 5 miles.

Local officials: Government Agent and Office Assistant, District Judge, Superintendent of Police, Provincial and District Engineers, Superintendent of Surveys.

Carriage and rickshaw rates, within the Municipality. Carriages, from 6 a.m. to 7 p.m. Rs. 4; six hours Rs. 2; half an hour 50 cents; second half hour 50 cents; every subsequent hour or portion, 25 cents. After 7 p.m. one fourth more; with two horses one half more. Rickshaws, first half hour 25 cents; every half hour afterwards 10 cents; after 7 p.m. one quarter extra.

Trains to Colombo ($3\frac{1}{4}$—$3\frac{3}{4}$ hours) at 6-25 a.m., 8-55 a.m., 12-40 p.m., 6 p.m., returning from Fort Station at 7-28 a.m., 12-20 p.m., 3-5 p.m. and 6-55 p.m.

GAMPOLA. Central Province, Kandy district, 13 m. from Kandy, by road and rail, $10\frac{1}{2}$ m. from Nawalapitiya (p. 141), 34 m., from Nuwara Eliya (p. 142). Population 3,791. Elevation 1,572 feet. Post and Telegraph Office. Resthouse. Athletic and Cricket Clubs. Hospital.

There are many tea estates, with a small amount of rubber and other products, in the district, which is very pretty, the Mahaweli-ganga flowing through it, and being bridged upon the road to Nuwara Eliya.

Local official; Police Magistrate.

Carriage hire: First hour 75 cents, second 50, subsequent hours 25. Rickshaws, 25 cents a half hour.

HABARANE. North-Central Province, on the road to Trincomalie, 15 m. from Dambulla (p. 144). Population 100. Village Receiving Post Office. Resthouse.

Roads to Minneriya (p. 129) and Polonnaruwa (p. 126) and to Galpitigala, for Ritigala (p. 131), start here.

Coach to Matale leaves Habarane 7-10 a.m., reaches Matale 3-30 p.m.; leaves Matale 10 a.m., reaches Habarane 5-20 p.m. Fares Rs. 9·50, 6·25, 5·25.

HAKGALA. The mountain branch botanic garden of the Peradeniya institution, 6 m. from Nuwara Eliya on the Badulla road (p. 145). It was opened in 1861, the site having been largely selected by Sir Clements Markham as well suited for the growth of cinchona (p. 40), which he had just brought from Peru. For many years it was simply a cinchona nursery, and during the boom in that product distributed an enormous number of plants, but since 1882 it has been transformed into a botanic garden for the plants that will grow at such high elevations and in such a cool climate the mean temperature of the year being only 61°. The garden is in charge of a European Curator, and there is a Laboratory there with two bedrooms, in which scientific visitors may work and sleep, but ordinary visitors must return to Nuwara Eliya, though there is a summer-house in the garden which makes an admirable place in which to have breakfast or tea. There is a shed where horses and carriages may be put up.

Entering from the Nuwara Eliya road, the drive makes a loop round the garden, and from the upper drive there is a branch to the bungalow of the Curator. Going round the lower side of the loop, the first object of interest is a little pond on the right, overhung at the farther end by some beautiful native tree ferns (p. 69), and then on the left a little lawn with a seat. Further on is the path to the big summer-house, on the left, and on the right a herbaceous garden, in which the plants are arranged according to their natural families. Above it is a circular rose garden in which roses and other ornamental flowers are massed together so as to produce a very pretty effect, which is seen to best advantage in February—April. Here is the carriage shed, and from it the road goes up to meet the branch from the Curator's house, and then descends through the beautiful fernery, past the pond, to rejoin the drive from the entrance gate. Having driven round, the carriage should be sent to the shed, and the path turning to the left, down the steps, at the junction of the drive, taken. It passes a little summer arbour, and crosses a little stream by a rustic bridge, and then winds round till it joins the path leading to the large summer arbour, where turning to the left, we come to the arbour in a few yards.

This is a good place in which to have a meal, and commands a most lovely view over the Uva patana country, with the peak of Naminakuli-kande in the centre, rising to a height of 6,680 feet. Running away to the left of it is the long mountain ridge of the Madulsima planting district, while some distance to the right is the high ridge running along from Bandarawela to the Haputale pass, half way along which, the camp of Diyatalawa can be made out. In the immediate foreground the way in which as the country becomes drier the forest gives way to patana, can be very well seen (p. 61). The great plateau spread out below us is the driest part of the mountain district of Ceylon, being some distance below the Hakgala range of hills (p. 14), while on Naminakuli the climate is again wetter, and tea is cultivated.

Returning directly up the hill from the arbour, we may pass through the herbaceous garden, the circular rose garden, and upwards past the potting sheds to the green-house on the top of the hill by the Curator's house where many pretty pot plants may usually be seen. Proceeding past the Curator's house, the path enters the Fernery, which is extremely beautiful, containing a vast number of different species of plants, including many tree ferns, which are in reality, the smaller ones at least, continually planted in the positions in which they grow, but which look as if they belonged to the jungle. Hakgala was one of the earliest gardens to be laid out in this "natural" style which is now so popular, and is one of the most successful examples of it. From the tree ferns we may go down to the pond, where there is a little arbour, and from there, turning to the right we may make our way back to the carriage shed.

An interesting, but fatiguing excursion may be made to the summit of Hakgala rock, overlooking the garden, but as the path is somewhat complicated, application should be made to the Curator for a guide, and three or four hours allowed.

HALDUMMULLA. Uva Province, on the road from Ratnapura 49¼ m. to Badulla, 31¼ m., p. 146. Population 305. Elevation 3,388 feet. Post and Telegraph Office. Rest-house, with a lovely view out over the southeast of the island.

HAMBANTOTA. Southern Province, Hambantota district, 47½ m. from Matara, and 75¼ m. from Haldummulla on the main road from Colombo to Batticaloa. Population 2,843. Post and Telegraph Office. Resthouse. Hospital. Reading Room.

The place lies in the driest district of Ceylon, and the vegetation is quite different from that at Matara, which is so near at hand. This is one of the chief districts in which salt, which is a Government monopoly in Ceylon, is collected.

All along the coast are shallow lagoons called lewayas, in which, after they have been filled by the rains of the northeast monsoon, the salt forms by evaporation from March to September. The occupation of gathering it is a very precarious one, being liable to interruption from rains, &c., and the amount collected shows variations from less than 2,000 to over 145,000 cwt. in two consecutive years.

There are extensive irrigation works near Hambantota, and near Tissamaharama there are some very fine ancient ruins of dagobas, &c.

Local officials: Assistant Government Agent, District Engineer, Medical Officer.

Coach from Matara, leaves Matara 10-30 a.m., arrives Hambantota 8 p.m.; leaves Hambantota 5-30 a.m., arrives Matara 3-30 p.m. Fares Rs. 12·50, 5·50, 3·50. Round-the-island steamers call once a fortnight each way.

HANTANE. Central Province, Kandy district, planting district, lying south of, and close to, Kandy, 40 estates with 8,000 acres in cultivation, mostly in tea, but with a good deal of rubber. Railway stations, Kandy and Peradeniya. Elevation 2,000 to 3,500 feet.

HANWELLA. Western Province, Colombo district, on the road to Avisawela, 18¼ m. from Colombo (p. 138). Population 1,374. Post Office. Resthouse. Nearest station, Waga, 3 m.

HAPUTALE. Uva Province, on the road from Ratnapura 56¾ m. *via* Haldummulla 7¼ m. and rail from Colombo, to Bandarawela 6¼ m. Population 535. Elevation 4,687 feet. Post and Telegraph Office. Resthouse. Bow Club (usually meets at Bandarawela). English Church. Hospital.

This place is the headquarters of a Planters' Association, and the district comprises about 50 estates, covering about 21,000 acres, mostly in tea, but with a little rubber at the lower elevations.

The climate is moist, misty, and windy, the resthouse lying at the summit of the pass which leads from the low country of the south into the Uva patana country. There are often wonderful views to be had both to north and to south. One of the prettiest walks is along the bridle path to Nuwara Eliya, reached by crossing the railway on the Colombo side of the station. It goes through alternate stretches of jungle and patana. A pretty road also is that to Haldummulla, and to Bandarawela.

HARAGAMA. Central Province, Kandy district, 9½ m. from Kandy on the road to Maturata.

HATTON. Central Province, Kandy district, on the railway from Colombo (p. 158). Roads see pp. 141, 147.

Population 1,440. Elevation 4,141 feet. Post and Telegraph Office. Hotel. There is a racecourse at Darrawella, where the Dikoya Clubs (q. v.) meet. Good stores. Hatton was formerly, before Nuwara Eliya became so easy of access, a very popular place of resort, but is now rather the centre for the three great planting districts of Dimbula, Dikoya, and Maskeliya. The walk to Dikoya village, and as far as the church beyond, is pretty, but the pleasantest short excursion is by the Dimbula road to the Devon falls, and there is of course the interesting trip to Adam's Peak to be made, by way of Maskeliya (q. v.)

Coach to Norwood, leaves at 6 a.m. and 2-20 p.m., arriving Norwood 7-20 and 3-30, arriving Bogawantalawa (change coach) 8-45 and 5, arriving Maskeliya 8-30 and 4-45. Fares to Bogawantalawa Rs. 6, 4·50, 3, to Maskeliya Rs. 5, 3·75, 2·50. Times different on Saturdays.

Carriage hire: First, second, and subsequent hours, 75, 50, and 25 cents.

HENERATGODA. Western Province, Colombo district, on the road from the Kandy road to Negombo (p. 137) and on rail from Colombo (p. 150). Population 1,424. Elevation 33 feet. Post and Telegraph Office. Resthouse at end of station platform.

The object of most interest is a little Botanic Garden, about a mile from the resthouse, along the Negombo road. Entering, the direct road passes between two small portions of forest (p. 37) to the centre of the garden. About three quarters of the way up, on the right, is a path by which entry can be made into the forest. Just beyond, on the left, is a plantation of large old Para rubber trees. These were brought from South America in 1876, and the garden was opened for their reception; from their seed or progeny the whole of the great rubber industry of Ceylon has sprung up. Tapping experiments may often be seen going on upon these trees or a somewhat younger plantation further on. On the left is the little laboratory building, with an open verandah in which meals may be taken, and behind that is an open lawn. A very pretty path leads round to the right, some distance further on, and returns round the outside of the garden to the entrance, while if the path on the left be taken it also leads round to the entrance, passing a plantation of cinnamon on the way.

A little further along on the road to Negombo is Asgiriya temple, upon a large isolated rock.

HEWAHETA. Central Province, Nuwara Eliya district. Elevation of district 2,000 to 6,000 feet. Post and Telegraph Office. Gymkhana Club. Planting district, with about 35 estates and 12,500 acres, mostly in tea.

HIKKADUWA. Southern Province, Galle district, on the road and railway from Colombo to Galle 12 m., (p. 140). Post Office. Resthouse.

HORANA. Western Province, Kalutara district. On the road from Panadure $8\frac{3}{4}$ m. to Ratnapura. Population 1,256. Post Office. Resthouse.

HORTON PLAINS. The highest plateau in the island, lying west of the railway line from Ambewela to Ohiya, and to be reached by footpath, on which horses can be ridden, from Pattipola Station, 6 m. or Ohiya Station 5 m. The latter path is very steep, and better suited for the descent, the former for the ascent. There are also footpaths to Haldummulla $12\frac{1}{4}$ m., to Belihuloya 15 m., to Agrapatana 12 m., &c. There is a good resthouse in the centre of the plains, but either supplies should be taken, or several days' notice given, as the resthouse-keeper has to get supplies from Haputale, and there is of course no postal delivery to the resthouse. It is best to send over a coolie to engage rooms, and wait for his return. The resthouse has several bedrooms, and a dormitory where a number of men can sleep, but is liable to be very full at any time from February to May.

Horton Plains is one of the most delightful places in the island, and shows practically no trace of man, other than the resthouse and the footpaths. Trout, both ordinary and rainbow, have been introduced into the streams, and the holder of a license may fish for them. They grow to a good size, and afford excellent sport attracting many fishermen to the plains. Hunting is also largely indulged in up here, and there are several very pretty walks across the patanas and through the forest.

The general formation of the plains is fairly typical for high mountain plateaux, whether in the Ceylon or the South Indian mountains—a flattish, rolling country, with higher hills at the edge, and with forest perhaps most commonly on the ridges, grassy patanas on the slopes, and sedgy, often swampy, patanas in the hollows. Two of the highest mountains in Ceylon, Kirigalpota (the milk-stone-book, so called from a book-like exposure of rock near the summit, which looks very milky after rain) and Totapella, stand upon the margin of Horton Plains.

The sharp distinction of forest and patana, described on p. 61, can be very clearly seen here, and a very brief investigation is required to find that the plants of the forest and of the patana are almost entirely different, though a few pathside weeds will be found in both. In the forest many interesting plants will be found, but to identify them is at present a work of some considerable trouble, and requires

some training in botany, the only book being Trimen's Flora of Ceylon. The writer and Mr. A. M. Smith are however bringing out a separate and more popular flora of the high mountain districts of Ceylon, which may appear in 1908. On the patana there is sometimes quite a show of flowers, and a good many familiar European kinds of plants will be recognised, *e.g.* buttercups, sundews, burnet, spurge, skull-cap, hammerheads, gentian, bluebells, valerian, brambles, lady's-mantle, agrimony, barberry, anemone, &c. All of these are native to Ceylon, but most of them represent the farthest southern migration of these northern forms, and almost none of them are the same species as found in Europe, though at once recognisable as near relatives. On the patanas may also be seen, especially in the hollows of the streams, large trees of the magnificent scarlet Ceylon Rhododendron.

One of the finest walks is to the precipice known as the World's End. There are two separate places where one may look over the great precipice that terminates the plains on the southwest, both on the same road, and the second is much the finer, and should not be missed. If a fine day be obtained, one can see from the edge of the cliff right away to the southern coast of the island, to the lewayas at Hambantota (*q. v.*) glittering in the sun. The bulk of this southern country is flat, but there is a lofty ridge of mountains in the Balangoda district, and other summits towards Galle. The drop at one's feet, especially at the Second World's End, is quite perpendicular, and of remarkable height, though the absurd exaggerations given in several books on Ceylon are absolutely incorrect. Immediately below is the estate of Nonpareil, the elevation of which is about 5,800 feet, while the summit of the cliff is about 7,000. From Nonpareil the ground slopes rapidly away to the low country, so that at a distance of some miles from the cliff one is already at quite a low elevation, but the cliff itself is only about 1,000 feet high. The valley below is said to be that where Sindbad the sailor found the diamonds, and whence he was carried away by the roc.

The descent to Ohiya is very pretty, through forest all the way from the level of the plains till one comes out upon the railway line at some distance from Ohiya Station (turn to the right).

HUNASGIRIYA. Central Province, Kandy district, a mountain (p. 156) and small planting district (10 estates, with about 4,000 acres, mostly in tea). Resthouse at Panwila.

JAFFNA. The capital of the Northern Province, in Jaffna district, on the road from Kandy, *via* Anuradhapura, 207 m. and the railway from Colombo. Population in 1901, 33,879, in 1907, 35,099. Post and Telegraph Office. Resthouse (hot

and windless). Churches (Catholic, English, &c.) Hospital, Friend-in-Need Society, Medical Mission, Young Men's Christian Association, Library.

Jaffna is the capital of the northern purely Tamil division of Ceylon, and from the entirely different climate, scenery, agriculture, and people, is a very interesting place to visit. The careful methods of agriculture and gardening practised by the people will of course have been noticed in the surrounding country, and the way in which they irrigate their fields by means of well sweeps—somewhat as is done in Egypt. In the town the striking difference is in the comparatively clean and tidy way in which the houses are kept, each enclosed in its own little compound or garden with a hedge or a cadjan (p. 47) or palmyra leaf fence around it. One of the most interesting places to visit in Jaffna is the large open-air and covered market diagonally opposite to the resthouse, to the right across the large open space in front of it. Here may be seen all the produce of the neighbourhood on sale, and many interesting things may be purchased at extraordinarily low prices if one have an interpreter, *e.g.* the palmyra-leaf woven elephants at 6 cents each, prettily cut circular palmyra fans at 25 cents, woven square palmyra-leaf baskets at 10 cents upwards according to size, and many other things.

The most generally interesting sight in Jaffna is of course the fine old Dutch fort, which lies opposite the resthouse across the grassy esplanade, the road leading past the police barracks. It is a very fine and well preserved specimen of an old fort, and still has the moat, the glacis, &c., complete. Inside are bungalows, &c., and a particularly interesting old Dutch church, in the form of a Greek cross. Round the walls are quaint old pews, and in the floor are the graves of many of the old Dutch commandants of Jaffna.

Beside the church, between it and the tennis courts, is a path leading to a stair by which one can get up on the walls of the fort, and no one should omit to do this, and walk round to the right, where fine views over the shallow inlet in front of Jaffna are to be had.

A drive along the sea front road, both right and left from the road leading to the beach from the resthouse, is to be recommended.

Jaffna is full of missions, and the American mission, which has been there since 1824, may be specially mentioned.

Local officials: Government Agent and Office Assistant, District Judge, Provincial and District Engineers, Medical Officer, Superintendent of Surveys, &c.

Carriage rates: 6-30 a.m. to 7 p.m. Rs. 4; 6-30 to noon, or noon to 7 p.m. Rs. 2; first hour Rs. 1, second hour 50 cents, subsequent hours 25 cents.

BANYAN TREE AT KALUTARA.

(See page 201.)

Coach to Kayts, by way of Vaddukoddai (Batticotta), where there is a large mission station, leaves Jaffna 6 a.m., arrives Kayts 9-45; leaves Kayts 3-30, arrives Jaffna 7-15 p.m. Fares Rs. 1·40, 1 and 70 cents.

KADUGANNAWA. Central Province, Kandy district, on the road and rail from Colombo to Kandy (9 m.) Population 1,066. Elevation 1,698 feet. Post and Telegraph Office. There is a monument to Major Dawson, the builder of the road up the pass.

KALAWEWA. See p. 128.

KALUTARA. Western Province, Kalutara district, on the road and rail from Colombo $26\frac{3}{4}$ m. to Galle, and at the mouth of the Kalu-ganga river. Population 1901, 11,500; 1907, 11,922. Post and Telegraph Office. Resthouse. Tennis Club, Cricket and Sports Club. Roman Catholic and English Churches. Hospital. Reading Room.

There is a Planters' Association for the Kalutara district, but the estates, some 110 with about 45,000 acres of land, mostly in rubber, but with a fair amount of tea, are mainly some distance inland, around Neboda and Anguruwatota.

Carriage hire: From 6 a.m. to 7 p.m. Rs. 4; from 6 to noon, or noon to 7 p.m. Rs. 2; first hour and second hour each 50 cents, subsequent hours 25 cents. Rickshaws, first half hour 20 cents, first hour 35 cents, and subsequent hours 20 cents each.

KANDAPOLA. Central Province, Nuwara Eliya district, on the road and rail from Nuwara Eliya 6 m., to Ragalla 7 m. Population 360. Post and Telegraph Office. Cricket and Tennis Clubs.

The district is largely planted in tea, though above the 5,000 feet limit (p. 71), land here having been largely sold before the new law came in. On the hills about are large areas of forest.

KANDY. The capital of the Central Province, Kandy district, 74 m. from Colombo by rail, 72 by road *via* Kegalle (p. 136). To Lewelle ferry 2 m., Gonawatte ferry (p. 145) $5\frac{1}{2}$ m., Teldeniya by Gonawatte $12\frac{1}{2}$ m., Kadugannawa $9\frac{1}{2}$ m., Katugastota bridge $2\frac{3}{4}$ m., railway station $3\frac{3}{4}$ m., Peradeniya 4 m., Gampola 13 m. Population 1901, 26,386; 1907, 29,020. Elevation of station 1,602 feet, of lake 1,654 feet. Mean temperature 75·50. Post and Telegraph Office near the station.

Hotels. The large hotel of Kandy is the Queen's, at the north end of the lake. The Florence, on the other side of the lake and some distance up it, is very comfortable and quiet for a stay of more than a day, and there are other cheaper places, *e.g.* Mrs. Warren Walker's boarding house in Ward Street.

Clubs, &c. The General Club, with residential accommodation, is in Ward Street, opposite the Mercantile Bank. Tennis Club, at far end of lake; Race Club, with course at Peradeniya; Sports Club. Mercantile and National Banks in Ward Street. Churches of all kinds, Roman Catholic, English, Scotch, &c. Hospital. Friend-in-Need Society. Band-of-hope. Industrial School. Young Men's and Women's Christian Associations. High Schools. Library. United Service Library in the Kandyan building on the lake shore by the temple. Oriental Library in the temple. Artwork Association.

Kandy is as beautiful a town as one could wish to see, though the approach from the station is not imposing. The central feature of the place is the little lake, 45 acres in extent, which was constructed by the last king, and was one of the few useful or beneficial acts that he performed. A very pleasant walk round the lake, a distance of about 1½ m., may be enjoyed in the early morning or in the evening, and there are seats at some of the places commanding the best views. Round the lake are situated many of the best residential houses in the town, but the climate is somewhat steamy so near to the water.

In front of the end of the Queen's Hotel is the esplanade, upon which has recently been erected an equestrian figure in memory of those of the Ceylon Contingent who fell in the South African War, and at the far end is the characteristic outline of the "Kandyan roof" of the famous Temple of the Tooth (p. 98). Kandyan architecture has roofs of this pattern as a regular feature; the upper half of the roof slopes at a steeper angle than the lower, so that there is an angle about half way down. The temple is disappointing in size and grandeur when one thinks of it as in a sense the central worshipping place of the Buddhist religion, but it is worth a visit, especially perhaps at the hour of 9-30 or 5-30, when "services" are going on. The temple was one of the series of buildings grouped about the residence of the king, who himself lived in the Old Palace, as it is now called, the residence of the Government Agent of Kandy, standing on the top of the bank to the left of the temple. To the right of the temple, on the shore of the lake is the United Service Library, occupying a building which was formerly the bath-house, and on the island in the lake are the ruins of a summer-house. Behind the temple, up the little street to the left, and on the left side of the little square at the top of it, is the Audience Hall of the old kings, now used as the district court house. The pillars in the hall are well worth examination, on account of their beautiful carving. Opposite this building is the two-storied modern kachcheri.

KANDY.

(*See page 202.*)

Returning to the temple, and entering from the road that starts opposite the Library entrance and runs along past the Old Palace, we pass through a quadrangular arch, which has two good janitor stones (p. 118) and gives upon a flight of steps leading up to the actual temple entrance, on either side of which are some frescoes representing the tortures of the Buddhist inferno. These frescoes are comparatively modern (p. 109), and their resemblance to the older European designs of the same nature will at once be noticed, though a few of the punishments, such as that of the spirit who is being plastered, like an advertisement, on to a prickly palm tree, are new. The main door is a beautiful piece of carving and represents the minor gods who guard the entrance. Within it is the verandah of the temple, and here the visitor, if he has not already experienced it, will be pestered with the attentions of would-be guides, touts and beggars. Buddhist

KANDY LIBRARY AND TEMPLE.

priests are forbidden by their vows to accept money, and it is in bad taste to offer it to them, but a guide—well repaid with a small sum—may be useful.

Turning to the right up the steps, the visitor comes to the Oriental Library, occupying a handsome octagonal chamber, which stands at the corner of the temple, overlooking the grass of the esplanade. Here may be seen a large collection of ola (p. 126) books, which are worth inspection, their covers especially being often very handsomely worked. Most of the books are written in Pali, the sacred language of the Buddhist priests, but generally with a Sinhalese translation or commentary upon them. The visitor who is anxious to contribute towards anything in the temple cannot do better than subscribe a rupee or two to this library, placing the money in a box which will be found there.

Leaving the library and turning to the left up some more steps, a small shrine, containing several images of Buddha, is come upon. The most striking of these is an exquisite image, of a large piece of rock-crystal. Up another flight of steps from the central building is the dark and close chamber in which is the sacred tooth, enclosed in cover upon cover, getting more and more richly ornamented as we get nearer to the tooth, which itself is only produced upon rare occasions, such as a visit of royalty. The actual tooth is a discoloured piece of ivory, too large to have been a human tooth. The original tooth is said to have been captured by the Portuguese at Jaffna, and destroyed by the Archbishop of Goa, but most Buddhists maintain that the original tooth was not at Jaffna—which indeed seems a curious place for it—and that the one destroyed was a counterfeit.

Going out by the steps facing the entrance to the quadrangle, the visitor will come to the Audience Hall (above), and going down the road from it will come to the Museum of the Kandyan Artwork Association, which should be visited. Here he will see the actual work of making brass and other ornaments going on, and may purchase such at fixed prices. The Association is endeavouring to keep in regular employment many of the old hereditary craftsmen of the Kandyan country, and though the visitor may at times pay a trifle more than for similar articles in the shops in the town, he has the satisfaction of knowing that he is helping to keep up an almost extinct but very beautiful art, and that the articles he buys are genuine.

Returning again past the library and the front of the temple, we may go along the road between the Old Palace and the Nata Dewale, a large temple sacred to Nata, in which are several dagobas (p. 79 and figure on p. 98). Over the entrance is a makara-torana (p. 132), while opposite, on the other side of the road, is the Maha Dewale, another Hindu temple sacred to Vishnu, in the garden of which is a very ancient bo-tree, one of the first cuttings taken from the tree at Anuradhapura. Beyond this again is St. Paul's Church, completed in 1853, and the principal place of worship of the Church of England in Kandy. Next to it, as we return to the hotel past the front of it, is the Police Court, and past this a fountain erected by the planters on the occasion of the visit of the present King in 1875. Beyond this, upon the esplanade, is a statue of Sir Henry Ward, Governor from 1855 to 1860, and on the right the memorial to the Ceylon Contingent in South Africa.

Returning from the hotel past St. Paul's Church, and going straight on, we may, if the Governor be absent, enter

MODEL OF THE TOOTH RELIC, KANDY.

[*Photo by A. W. Andree.*]

(*See page 204.*)

the grounds of the Pavilion, his Kandy residence, in which are some very striking specimens of vegetation, notably an Assam indiarubber tree (*Ficus elastica*), with huge creeping almost snake-like roots, a candle-tree, whose fruits look like tallow candles hanging upon the stem, a splendid cotton-tree (p. 65) in front of the house and others. Going out by the farther gate, and turning to the right, we come in a few yards to the Industrial School, where good work in carpentry, boot-making, &c., is carried on.

The visitor who does not mind a little walking should go up the hill on the northern (Queen's Hotel) side of the lake, by way of Lady Horton's Walk, the entrance to which is beside that to the Pavilion near to St. Paul's Church. The paths upon the hill are somewhat complex, but all are pretty, and there are seats along them, while they command lovely views over Kandy and its surroundings.

ESPLANADE AND TEMPLE.

The visitor who does not care to walk should drive down Trincomalie Street to the farther end, passing the Scots Church on the left, and Trinity College (a first rate boys' school, with a church attached) on the right, and turn up Lady Gregory's Road at the far end. This winds round and gradually up the hill, and at several points commands lovely views, notably at places overlooking the vale of Dumbara, northeast of Kandy, a great cacao-growing district with the Mahaweli-ganga winding through it, and with the high mountain range of the Knuckles (the top of which is not unlike the middle knuckles of the fingers) in the background, and Hunasgiriya Peak (p. 156) to the left. The road finally comes down at the upper end of Malabar Street by which a descent may be made directly to the Queen's Hotel, or Lady Longden's Drive may be taken to the left, leading to the top of the lake.

The road round the lake should also be driven over, if not already seen, and the Malwatte temple, almost opposite the Queen's Hotel, visited. This is an important temple, at which, or at Asgiriya, every Kandyan priest is supposed to take the vows.

One of the most beautiful drives in Kandy is to be obtained along the Upper Lake Road, which is reached by going past the head of the lake for some distance up the road, and then turning to the right up a gravel road. Splendid views of the Knuckles range and Hunasgiriya Peak (p. 156) are to be obtained, while from a point where there is a stone bench, there is a fine view of Kandy, looking straight down Trincomalie

KANDYAN CHIEFS.

Street to the pointed tops of the Matale hills in the background. Before turning down at the western end, a detour may be made to the reservoir of the Kandy waterworks, which is pretty, and the little Wace Park may be visited, commanding fine views. The descent is above the jail, behind which is the very pretty Bogambra recreation ground, on which cricket, football, &c., are played.

An excursion which should not be omitted is to the Peradeniya Botanic Gardens (*q.v.*), and others of interest are to see the elephants belonging to W. Dunuwille, Dissawa, a great Kandyan chief, bathing in the Mahaweli-ganga at

Katugastota, to Gadaladeniya and Lankatilake temples (p. 131), and the return from this or the Peradeniya excursion by Lady Blake's Drive, which is entered by turning to the left about a mile on the Kandy side of Peradeniya, and which leads down a beautiful gorge of the river to the Halloluwa road, by which we return to Kandy. Yet other drives of interest are by way of Malabar Street to the Gonawatte ferry, about 5½ miles, to Katugastota, about 3 miles, and along the Ampitiya road at the head of the lake, while it is worth going to the rock temple at Hindugala, following the road that turns left to Deltota between the gate of the Peradeniya gardens and the bridge. There is a considerable climb to the temple, but it contains some frescoes, and commands a fine view of Adam's Peak. One of the best spots from which to obtain the latter is the Grand Stand on the Peradeniya Racecourse.

History. Kandy has but little. At the beginning of the 14th century a temple was built for the tooth, and in 1592 it became the capital of the Sinhalese monarchy. After undergoing many destructions at the hands of the Portuguese and Dutch, it was finally captured by the English and the king deposed in 1815. A few historical relics are still to be seen, *e.g.* round the laboratory and offices of the Peradeniya Experiment Station are the remains of the earthworks in which a Portuguese detachment sheltered itself, and in which it was slaughtered by the Kandyans in 1638; and near Katugastota is "Davie's tree," the scene of the massacre of the British troops that were left (under Major Davie) to garrison Kandy after it had been captured by General Macdowall in 1803.

Local Officials: Government Agent and Office Assistant, District Judge, Police Magistrate, Provincial and District Engineers, Superintendent of Surveys, Medical Officer, &c.

Carriage hire: 6 a.m. to 7 p.m. Rs. 5; six consecutive hours Rs. 2·50; first half hour 60 cents; first hour Rs. 1·20; each subsequent hour 30 cents. Rickshaws, first half hour 30 cents, second half hour 30 cents, subsequent half hours 15 cents; after 7 p.m. 35, 35, and 20 cents respectively. Weekday trains to Colombo, see p. 148; to Matale at 7-45, 11-23, 2-45, 6-35 (see p. 148); to Hatton &c. at 7-5, 10-30, 1-5, (see p. 148).

KANGESANTURAI. Northern Province, Jaffna district, 11½ m. by road from Jaffna, and at the terminus of the northern railway. Post and Telegraph Office. Resthouse. There is little to see in the village, but the inland country towards Jaffna is a model of careful and laborious cultivation. Steamers run fortnightly in each direction, on the "round the island" trips, to Pamban and Colombo, and to Point Pedro and Trincomalie &c. Train to Colombo at 7-5 a.m.; to Jaffna also at 1-0 and 3-55.

KANTHALAI. Eastern Province, Trincomalie district, 24½ m. from Trincomalie, 43½ m. from Dambulla. Village Receiving Office. Population 156. Resthouse. There is a magnificent tank here, on which there is good sport to be obtained, and the place is very popular with sportsmen. Coach to Matale at 12 p.m., arriving at 3-30 p.m.; leaves Matale 10 a.m., arrives Kanthalai 1 a.m.

KARAWANELLA. Sabaragamuwa Province, Kegalle district, on the road from Colombo (39 m.) and on the rail from Colombo to Yatiyantota. The station for Ruwanwella, 2½ m. distant across the Kelani, from the bridge over which river is one of the most beautiful views in the island. Railway Receiving Post Office. Train about 11 minutes earlier or later than Yatiyantota (q. v. p. 148).

KATUGASTOTA. Central Province, Kandy district, about 3 m. from Kandy on the north road (p 143), and on the railway to Matale (p. 155.) Elevation 1,534 feet. Post Office. There is a fine girder bridge of 330 feet long (over the water). Elephants may often be seen bathing in the river (p. 18).

KEGALLE. Sabaragamuwa Province, capital of the Kegalle district, on the main road from Colombo (49 m.) to Kandy (23 m., p. 136). Cross road, passable for motors, to Bulatkohupitiya resthouse and Ruwanwella resthouse, through district largely planted in rubber and tea; and to Polgahawela station and Kurunegala, also suitable for motors. Population 2,340. Elevation 780 feet. Post and Telegraph Office. Resthouse (give notice as it is liable to be inundated by planters). Churches. Hospital. Library.

There is a Planters' Association in the district, which has about 50 estates with 15,000 acres opened, mostly in rubber and tea. The district is steeply hilly and very rainy.

Kegalle has a very long bazaar, in which is a pretty ambalam or native resting place, and a small esplanade. There is a pretty walk of about 2½ m. along a road which turns off almost exactly opposite the resthouse and runs round into the Bulatkohupitiya road.

No conveyances can be got but hackeries drawn by bullocks, at 25 cents a mile. Coach to Polgahawela at 6-45 a.m., and 1-45 p.m., arriving at 8-30 and 3-30; returning at 9-30 and 4-30, arriving at Kegalle 11-15 and 6-15. Fares Rs. 2·50, 1·50, 1.

KEKIRAWA. North-Central Province, on the road from Dambulla 14 m. to Anuradhapura 26½ m., (p. 143). Population 423. Village Receiving Post Office. Resthouse, kept by a Kaffir who was instrumental in the taking of the bandit Sardiel (p. 153). Good road to Kalawewa tank, which should be

visited (p. 128); Anuradhapura may be reached thence *via* Talawa Station, passing Maha-iluppalama Experiment Station (a branch of Peradeniya) on the way; the road is good for motors. There is also a very rough cross road, only passable by bullock cart, for about 4 m., to the road from Maradankadawela to Habarane, from which the ascent of Ritigala may be made.

KELANI VALLEY. The great valley of the Kelani river, which reaches the sea at Colombo, and which is now opened up by the K. V. narrow gauge line to Yatiyantota. The lower part of the valley, below Avisawela, is mainly occupied with native cultivation, but above that the country becomes very hilly, and is largely occupied by European estates, this being the largest planting district in the island, and having about 160 estates of about 60,000 acres, mostly in tea and rubber. The Planters' Association has its headquarters at Taldua, about a mile from Avisawela, and has there a club house, racecourse, tennis courts, &c.

The upper part of the valley is one of the most beautiful districts in the island, and from the lovely view off the bridge at Karawanella to the summit of the pass at Ginigathena, there are but few dull portions.

KELEBOKKE. A planting district northeast of Kandy (resthouse at Panwila) with about 15 estates of 9,000 acres, mostly in tea.

KITULGALA. Sabaragamuwa Province, Kegalle district, on the main road from Colombo up-country (p. 138). Population 955. Village Receiving Office. Resthouse. The place lies in a very pretty but extremely rainy situation, beside the river, on the far side of which is forest (p. 37).

KNUCKLES. The high range of mountains northeast of Kandy, and with a Planters' Association. About 17 estates, with about 5,000 acres, mostly in tea.

KODIKAMAM. Northern Province, Jaffna district, 15¼ m. from Jaffna on the main road to the south. Station on the railway. Population 700. Railway Receiving Post Office. Coach to Point Pedro and Valvettiturai, leave Kodikamam 8-40 a.m. and 7 p.m., 2½ hours to Point Pedro, 3 hours to Valvettiturai; leave Valvettiturai 4-45 a.m. and 2-45 p.m. Fares Rs. 2, 1·50, 1.

KOLLUPITIYA (Colpetty). A southern suburb of Colombo (q.v.). Post and Telegraph Office.

KOSGAMA. Western Province, Colombo district. Station on the Kelani Valley line, ½ hour nearer Colombo than Avisawela. Railway Receiving Post Office.

KOTMALE. Central Province, Kandy district, 7 m. from Nawalapitiya, on the Craigie Lea road (p. 142). Post

and Telegraph Office. Sports Club. Planters' Association; about 25 estates, with about 10,000 acres, mostly in tea.

KURUNEGALA. The capital of the North-Western Province, on the railway from Colombo to Jaffna. 11¼ m. from Polgahawela, 35¼ m. from Dambulla, 54 m. from Puttalam, 44½ m. from Negombo. Roads see pp. 138, 140, 142, 144. Population in 1901, 6,483, in 1907, 7,831. Elevation 400 feet. Post and Telegraph Office. Resthouse. Tennis Club. Churches. Hospital. Library.

There is a Planters' Association; the district comprises about 40 estates with about 16,000 acres, mostly in cacao, rubber and tea, while coconuts are very largely planted and there are several important areas of plantains in the neighbourhood.

The town is pretty, and has a nice esplanade. The pleasantest walk is along the bund of the artificial irrigation lake, and an excursion to the top of the Elephant Rock is also interesting, and commands lovely views.

Local officials: Government Agent and Office Assistant, District Judge, Provincial and District Engineers, Superintendent of Surveys, Medical Officer.

Carriage hire: Twelve hours Rs. 4; six hours Rs. 2; first half hour 50 cents, second the same, subsequent hours 25 cents. Rickshaws 12 hours Rs. 2; six hours Rs. 1; five minutes 10 cents; half an hour 25 cents; detention 10 cents the half hour. More at night, after 7.

Trains to Colombo at 8-10, 11-45, 3-0, 5-55; from Colombo at 7-30, 2-10, 5-5 (2½ to 3½ hours); to Anuradhapura at 10-12 and 5-5; from Anuradhapura at 7-45 and 2-20 (3½ hours).

LABUGAMA. Western Province, Colombo district, 25¼ m. from Colombo (p. 139) the site of the great reservoir (176 acres) of the Colombo water works by which the port is supplied with what is about the best water to be got in any tropical port. The reservoir was built in 1882-6 and has a maximum depth of 60 feet, while it can supply 1,233 millions of gallons.

LINDULA. Central Province, Nuwara Eliya district, 3 m. from Talawakele. Population 395. Elevation 4,200 feet. Post and Telegraph Office. Hospital. Coach from Talawakele, leaves Talawakele 3 p.m., arrives 4; leaves Lindula 9 a.m., arrives Talawakele 10.

LUNAWA. Western Province, Colombo district, 8¾ m. from Colombo by road or rail on the Galle line. Population 1,566. Railway Receiving Post Office. Resthouse.

LUNUGALA. Uva Province, 14¼ m. from Passara on the road to Batticaloa (p. 145). Elevation 2,400 feet. Post and Telegraph Office. Hospital. Resthouse very comfortable.

MASKELIYA AND ADAM'S PEAK.

(See page 211.)

A pretty planting district. Coach to Passara, Badulla, and Bandarawela at 7 a.m. reaching Passara 9-30; leaves Passara 5-30 p.m., reaches Lunugala 8-40. Fares Rs. 5, 3, 2. Coach to Batticaloa leaves at 9 p.m. Fares Rs. 25, 15 and 10.

MADAWACHCHIYA. North-Central Province, on the road (p. 143) and rail (p. 164) to the north, $17\frac{1}{4}$ m. from Anuradhapura. Village Receiving Post Office. Resthouse. Population 228.

MADULSIMA. Uva Province, 7 m. from Passara (p. 146). Elevation 4,400 feet. Post and Telegraph Office. Planters' Association. 23 estates with about 12,000 acres, mostly in tea, at 2,000—5,000 feet.

MAHA-ILUPPALAMA. An Experiment Station kept up in the irrigable country of the north, as a branch of Peradeniya, for experiments with cotton, rubber, &c. $10\frac{3}{4}$ m. from Kekirawa, on the road to Talawa Station. To view, apply to the Superintendent, at the two-story house on the road.

MANNAR. Northern Province, the capital of the Mannar district, on the west coast south of Jaffna, and 52 m. from Madawachchiya by road. Population 5,332. Post and Telegraph Office. Resthouse. Churches. Hospital.

In the neighbourhood are some fine specimens of the baobab tree, a native of tropical Africa, supposed to have been introduced by the Arabs. The district is almost the driest in Ceylon, having only $38\frac{1}{2}$ ins. of rain a year.

Local official: Assistant Government Agent.

MASKELIYA. Central Province, Kandy district, $11\frac{3}{4}$ m. from Hatton *via* Norwood (p. 147). Population 992. Elevation 4,000 feet. Post and Telegraph Office. Resthouse. Hospital. Planting district, with about 60 estates and 19,000 acres, practically all tea.

Though the district is pretty, the chief interest in it is Adam's Peak, the ascent of which is well worth making. The coach from Hatton, which runs to Maskeliya village, will for a rupee a passenger extra, go on to the resthouse, or Peak View Hotel. If there are three or more people a carriage may be taken from Hatton for an equal or less cost. The coach descends from Hatton through Dikoya village, crosses the little river, and runs past the church into the main valley of Dikoya, which is almost a continuous sheet of tea, but with the growth of the shade trees is becoming quite picturesque. At Norwood, at the crossing of the river, the coach changes horses, and runs up over the pass into the Maskeliya valley, which is a good deal more picturesque than Dikoya, and has the splendid outline of the Peak at the end. There is still a good deal of forest on the upper part of the hills, and the district is very rainy.

The hotel or resthouse is about 7-8 m. from the summit of the Peak, and more than 3,000 feet below it, so that at any rate 4 hours should be allowed for the ascent. As the chief thing to be seen is the sunrise and the shadow which then appears (in favourable weather), it is best to leave the hotel at night, between 12 and 1-30, according to walking capacity. Ladies can be carried in chairs for the first four miles. Guides with lamps must be taken, and warm wraps should be provided, for it is cold on the summit, and one is liable to be very hot with the exertion of walking up. Provisions for making early tea at the top must not be forgotten. The summit should be reached not later than 5-30, as the sun rises soon after. The ascent is best made at the full moon of January, February or March, as there is likely to be clear weather then, and large numbers of pilgrims also ascend.

The first few miles of the walk are through tea estates, and then up a steadily narrowing valley with steep sides, through bits of forest, and past a little hamlet where pilgrims often rest and get provisions. Beyond this one turns sharply to the left across the stream, and the steep ascent begins, up a rough path which in wet weather is simply a watercourse, in places worn out 4-6 feet deep, and in which there are many roots, high steps, &c. This ascent is troublesome for ladies, who should wear short skirts. The path leads up through dense forest for a long way, and then, a few hundred feet (vertically) below the summit, the little hamlet of Usamalle is passed, and the climb of the actual cone begins. The ascent of this is very simple, and the ridiculous exaggerations which have often been printed about it, making of it a climb that rivals that of the Matterhorn, are quite untrue to fact. At the steepest parts of the ascent, where it goes up almost naked rock, steps have been cut in the rock, a stout iron hand rail provided, and an ancient chain, dating very far back, and very picturesque with its hand-made links of different sizes and shapes, hangs over the rock and may be used as an aid in the ascent. No one should however try to make this ascent in Swiss mountaineering boots, as the steps are rather slippery with the constant polishing they undergo from the naked feet of innumerable pilgrims. Ordinary smooth leather soles are perhaps the best. Unless one be very giddily inclined, there is not the very slightest difficulty about the ascent, and the drop is nowhere very serious, perhaps 40 feet being the highest.

The final ascent is by a flight of steps past a little hut, on to the flat rock forming the summit, and which is about 30 yards square, with a wall round it, and a higher rock in the centre. On the summit of this is a little temple covering the

footprint, which is simply a depression in the rock, artificially "improved," but which is sacred to the Buddhists as the footprint of Buddha, to the Hindus as that of Siva, the Mahommedans as that of Adam, and even to some of the Catholics, at least in Portuguese times, as that of St. Thomas. If, as should always if possible be the case, the ascent be made at the full moon of one of the drier months, January, February, or March, large numbers of pilgrims will be seen arriving at the summit, while yet others will have spent the night there. They come up with shouts of "Sadu," worship at the footprint, ring the very ancient sacred bell at the north end of the enclosure, and soon depart after sunrise.

At about a quarter to six, the sun rises over the mountains to the east, often with great splendour, and if it be a fine morning a wonderful sight is presented. As soon as it is above the horizon one should go round to the other side of the summit to look for the famous shadow. If one be lucky enough to see it, for it is only sometimes visible, it presents itself as a vast dark triangle lying over the country to the west, and apparently reaching the sea at or near Colombo. In reality this shadow is like the spectre of the Brocken, for it is thrown on a fine mist which in the northeast monsoon often occupies the valley between the peak and the hills to the westward, but it looks as if it lay horizontally. As the sun rises it shrinks in and disappears.

After admiring the beautiful views in every direction that present themselves from the summit of the Peak, the descent may be made by the same path, and the resthouse reached for breakfast. There is also a path down the western side of the mountain to Ratnapura, but the distance and the height are much greater. It is not however as dangerous as is sometimes made out. On our last ascent but one, we saw a blind man and a lame man arrive at the summit by this route.

Coach to Hatton, leaves Maskeliya 8-30 a.m. and 5-15 p.m., arrives 10-40 and 7-30; leaves Hatton 6 a.m. and 2-20 p.m., arrives 8-30 and 4-45. Different Saturday and Sunday.

MATALE. Central Province, the capital of the Matale district, 16½ m. from Kandy by road (p. 143) and rail (p. 155). Population in 1901, 4,951, in 1907, 5,497. Elevation 1,208 feet. Post and Telegraph Office. Resthouse. Cricket and Tennis Clubs. Churches. Hospital. Reading Room.

Matale is a pretty little town, with a bazaar of phenomenal length, a fact probably to be accounted for by the former arrival of most of the estate coolies (p. 54) by the north road, so that every one was tempted to go further and further down the road to catch the new arrivals first. Coolies now arrive by Tuticorin and Colombo. Going out from the station and

turning to the left, we soon come to the resthouse, opposite to which is the Post Office. A little distance behind the resthouse is the pretty open space of the Esplanade, on which, to the left, is the Borron Memorial Hall, in which the local Planters' Association, and other bodies meet.

The district has (for Ceylon) an unusually good and deep soil, and in consequence is largely planted in cacao and rubber, both of them products liking such conditions. There are about 133 estates with 45,000 acres cultivated, mainly in tea, cacao and rubber.

Local officials: Assistant Government Agent, District Engineer, Medical Officer.

Carriage hire: 6-30 a.m. to 7 p.m. Rs. 4; 6-30 to noon, or noon to 7, Rs. 2; one hour, Rs. 1; second hour 50 cents, subsequent hours 25 cents. For trains see p. 148. Coach to Trincomalie at 10 a.m., arriving at Trincomalie 9 a.m.; leaves Trincomalie 3 p.m., arrives Matale 3-30 p.m. next day.

MATARA. Southern Province, capital of the Matara district, 27½ m. by road (p. 140) and rail (p. 168) from Galle. 47½ m. from Hambantota. Roads see pp. 140, 141. Population 11,848 in 1901, 13,043 in 1907. Post and Telegraph Office. Resthouse. Tennis Club. Churches. Hospital. Reading Room.

Matara is a pretty little town on the south coast, and worth a visit. There is a fine old Dutch fort, joined to the main part of the town by a bridge over the Nil-ganga (on the far side of which is a little outlying fort), and in it is the resthouse, &c. Close to the fort is a little island, joined to the mainland by a causeway, and it is well worth going out upon this in the cool of the day, for the sake of the views it commands. A pretty walk is from the resthouse to the mouth of the Nil-ganga. The famous old temple of Dondra Head, the southernmost point of the island, should also be visited, and a very interesting trip is to go by boat for a few miles up the river, taking care, on account of the crocodiles (a protected bathing place may be seen near the bridge), not to put the hand or foot in the water. Good specimens of mangroves may be seen along the banks of the stream, and many fine nests of the weaver bird.

Local officials: Assistant Government Agent, District Judge, Police Magistrate, Assistant Superintendent of Police, District Engineer, &c.

Carriage hire: from 6-30 a.m. to 7 p.m. Rs. 4; 6-30 to noon or noon to 7 p.m. Rs. 2; first half hour 50 cents, second 50 cents, every subsequent hour 25 cents. Rickshaws, first half hour 20 cents, second 15, every subsequent hour 20 cents. Trains see p. 148. Coach to Akuressa, Morowaka and

Deniyaya, at 10 a.m., arrives 5. Fares Rs. 13, 7, 4. Leaves Deniyaya 8-30, arrives 3-30. Coach to Tangalla and Hambantota at 10-30, arrives 8; leaves Hambantota 5-30, arrives 3-30. Fares Rs. 12·50, 5·50, 3·50. Coach to Tangalla at 1-30 p.m. returning at 6 a.m. (4 hours).

MATURATA. Central Province, Nuwara Eliya district, the upper end of the valley reached from Nuwara Eliya by Brookside, the lower end from Kandy (p. 144). Population 78. Elevation 3,500 to 5,600 feet. Post and Telegraph Office. Hospital. The valley is very pretty, and has about 22 estates with 7,000 acres cultivated, mainly tea. There is a Planters' Association.

MIHINTALE. North-Central Province, 8 m. from Anuradhapura (see pp. 143, 147). Resthouse. For description of the very interesting ruins, see p. 121.

MINNERIYA. North-Central Province, 15 m. from Habarane (p. 144). There is only a bungalow belonging to the Irrigation Department here, and quite unfurnished. See p. 129.

MINUWANGODA. Western Province, Colombo district. Population 677. Post Office. Resthouse. Bullock Coach to Negombo, leaves 6-30 a.m., arrives 9-30, leaves Negombo 3-30, arrives 6-30. Road see p. 138.

MIRIGAMA. Western Province, Colombo district, on the railway to Kandy (pp. 138, 140, 155). Elevation 164 feet. Post Office. Resthouse, in a situation commanding a pretty view. There is a good school garden in the town (Mugurugampola, see p. 103).

MONERAGALA. Uva Province, a long way from anywhere, and perhaps the most out of the way of planting districts. Post and Telegraph Office. There are about 8 estates, with about 4,000 acres, mostly tea, rubber and cacao. The district is unhealthy.

MORATUWA. Western Province, Colombo district, 9¼ m. from Colombo by road (p. 140) and rail (p. 166). Post and Telegraph Office. Resthouse. Cyclists' Union. Population 29,600. The large town is practically a seaside suburb of Colombo. There is a large boys' school, the Prince of Wales' College, there.

MORAWAK KORLE. Southern Province, Matara district, reached by coach from Matara (q.v.). Village Receiving Post Office at Morowaka. Planters' Association. 17 estates, with 4,000 acres, mostly tea.

MOUNT LAVINIA. A southern suburb of Colombo, reached by road or rail, 6 m. from the Fort. There is a good first-class hotel there, formerly the residence of the Governor, and a favourite resort with passengers who are

only in Colombo for a few hours. It has passable bathing, and is famous for its fish tiffins. Post and Telegraph Office.

MULLAITTIVU. Northern Province, capital of the Mullaittivu district, on the east coast, reached by road of 32 m. from Mankulam Station on the northern railway, by bullock coach. Population 1,308. Post and Telegraph Office. Resthouse. Hospital. Coach leaves Mankulam 7 p.m. and Mullaittivu 8 p.m. and travels all night. Fares Rs. 5, 3·75, 2·50.

Local official: Assistant Government Agent.

NALANDE. Central Province, Matale district, 14 m. from Matale on the north road (p. 143). Population 281. Resthouse. Formerly a very pretty district, now largely

MOUNT LAVINIA.

planted up with rubber, but containing some fine pieces of forest. There is a very handsome tamarind tree in the garden of the resthouse.

NANU-OYA. Central Province, Nuwara Eliya district, on the main line of railway from Colombo (p. 159) and 4 m. from Nuwara Eliya by road (p. 141). Post and Telegraph Office. Population 567. Elevation 5,291 feet.

NAWALAPITIYA. Central Province, Kandy district, on the railway to Nanu-oya (p. 157) and road to Nuwara Eliya. Population 3,454. Elevation 1,913 feet. Post and Telegraph Office. Hotel. Hospital.

NUWARA ELIYA.

(See page 217.)

NEBODA. Western Province, Kalutara district, 8½ m. from Kalutara. Population 690. Post and Telegraph Office. Hospital. The neighbourhood is mainly cultivated in rubber.

NEGOMBO. Western Province, Colombo district, 23 m. from Colombo on the Puttalam road, reached by coach or steamer, soon to have a railway. Population (1901) 19,819 (1907) 20,401. Post and Telegraph Office. Resthouse. Tennis Club. Churches. Hospital. Reading Room.

Negombo is a pretty, and very healthy, coast town, and will probably become a popular place of residence when the railway is opened. Very enjoyable sails may be had upon the lagoon, and the beach is a very pleasant place of resort, while there is good bathing in places. The islands in the lagoon are very favourable for the study of mangroves (p. 62).

Local officials: District Judge, District Engineer, Medical Officer.

Carriage hire: 6 a.m. to 7 p.m. Rs. 4; six hours Rs. 2; first half hour 50 cents; second 50 cents; each subsequent hour 25 cents.

Coach to Colombo at 7 a.m. and 3-45 p.m. arriving at 10-30 and 7-15; leaves Colombo at 7 and 2, arriving Negombo 10-30 and 5-30. Fares Rs. 3, 2, 1·50. Steamers leave Negombo for Colombo on week days at 6 and 7 a.m., 12-30 and 1-30 p.m.; leave Colombo at 6-30, 7-30, 1 and 2-15. Fare Rs. 1.

NEW GALWAY. Uva Province. A small planting district near Hakgala, with 7 estates of 1,300 acres, mostly tea, but with a little camphor.

NILAMBE. Central Province, Kandy district. A small planting district, with about 16 estates and 7,000 acres, mostly tea.

NITRE CAVE. Central Province, Kandy district. A small planting district northeast of Kandy, with two or three estates of 500 acres, mostly in cardamoms.

NORWOOD. Central Province, Kandy district, 6 m. from Hatton (p. 147). Post and Telegraph Office. Tennis Club. Coach to Hatton at 9-35 and 6-30 (except Saturday) from Hatton at 6 and 2-20 (one hour; fares Rs. 2·50, 1·87½, 1·25). Also to Bogawantalawa and Maskeliya (q.v.).

NUGEGODA. Western Province, Colombo district, on the Kelani Valley line. Railway Receiving Post Office. 20 miles by rail from Colombo.

NUWARA ELIYA. Central Province, the capital of the Nuwara Eliya district reached by road (pp. 141, 142) or rail (p. 163). Population 5,026 in 1901, 7,515 in 1907. Elevation 6,200 feet. Post and Telegraph Office. Hotels: Grand, St. Andrew's, Grand Central. Hill Club, with residential accommodation. United Club, with sports, tennis, cricket,

library, &c. Boat Club. Golf Club. Gymkhana Club. Hockey and Football Club. Churches. Hospital. Schools. Friend-in-Need Society. Library.

Nuwara Eliya is the great sanitarium and pleasure resort of Ceylon, and is yearly growing in favour with visitors from India, the Straits and Europe. Lying as it does over 6,000 feet above the sea, it has an average annual temperature of merely 58·3°, and has consequently to some degree the climate of Italy. During the earlier part, at any rate, of the south-west monsoon, *i.e.* usually from June to August, it is very wet, misty, and disagreeable, and again in October-December, but in the rest of the year it is a very pleasant place to live in, and the climate in September is usually particularly delightful, showing much less range of temperature than in what is usually called the "season" from February to May, when the day temperatures are higher, and at night, in the first two months at any rate, it may freeze. There is usually a sharp drop in the temperature as soon as the sun gets behind the western hills, and the visitor sitting out should be provided with warm wraps, to put on then.

Nuwara Eliya lies upon one of the open plateaux which occur in the high mountain regions, and are usually, contrary to what one would expect, covered, not with forest, but with grass (patanas, p. 61). It was first discovered by Europeans in 1826, and Governor Sir Edward Barnes soon afterwards opened a military sanitarium there. It has steadily grown to a place of importance, and become more and more accessible. At first reached by coach from Gampola, then from Hatton, then from Nanu-oya, it is now reached by a narrow gauge railway from Nanu-oya.

There are many beautiful and interesting walks and drives round the place. The visitor with limited time is recommended to walk to the top of Pedurutalagala (if of good capacity for exertion), and through the park, to drive round the lake on the western side and back by the Moon Plains, to drive to Hakgala, and to the Ramboda Pass.

Pedurutalagala. This, the highest mountain in Ceylon, 8,296 feet high, rises, covered entirely with forest, upon the northeast side of the valley. There is a good footpath, starting from beyond Cargills' store at the north of the town by a road running up the hill. The distance is about 2½ miles, and 2,000 feet have to be ascended, so that plenty of time must be allowed. Though many of the smaller plants, and most of the orchids, have been stolen, there is still enough of forest life to be of interest. The trees are of small height, very much gnarled, and often covered with a growth of mosses, ferns, orchids, &c. Near the actual summit the forest

shrinks to a kind of shrubbery, and many beautiful flowering shrubs will be noticed. At the very top there is a cairn, from which in fine weather there is a marvellous view, comprising most of the centre of the island. Several pieces of patana (p. 61) are passed on the way up, and it is from such pieces that the great extent of patana further east is supposed to have arisen (p. 62).

The Park. This has only been laid out a few years, but is rapidly coming into a state of considerable beauty. The maze, on the lines of the famous one at Hampton Court, may be noticed, and at the end nearest to the railway station, there is a small area kept up as a branch of Peradeniya botanic gardens, in which many beautiful flowers, and an ornamental lake may be noticed. The pretty avenue of conifers at the Post Office end is one of Cupressus macrocarpa, the Monterey cypress of California, only known wild on the little wind-swept peninsula of Monterey, but proving to be one of the best conifers for general cultivation in many parts of the world.

Round the Lake. A driving road goes completely round the lake, and affords many beautiful views, especially perhaps about a mile from the near end of the lake, on the south side, where a causeway is passed over with a little piece of lake on the other side. The bund by which the water of the lake, which is artificial, is held up, is on the far side of this little piece of water.

Moon Plains. These very pretty open patanas may be reached from the road round the lake, by turning off to the right soon after the main road to Badulla has been left for the return on the north side of the lake. Following the road it comes out ultimately upon the Barrack Plain on the north side of Nuwara Eliya, where there is another lake.

Ramboda Pass. This is the way by which the direct road runs to Gampola, and is worth following to the summit of the pass, from which there is a splendid view in both directions (See Chapter XI Roads).

Hakgala. The road to Hakgala (q. v.) runs along the southern side of the lake, and then down a pretty glen, finally coming into full view of the fine range of Uva mountains, which are invisible from Nuwara Eliya. No one, however short their time in the station, should omit this drive. Other pretty walks are to the Lover's Leap waterfall on the Nanu-oya road (carriage can go), round by the church, round the lake, over the links and racecourse, &c.

Local Officials: Assistant Government Agent, Police Magistrate, District Engineer, Medical Officer, &c.

Planters' Association (23 estates, 5,000 acres, tea).

Carriage hire: With one horse, 6-30 a.m. to 7 p.m. Rs. 6·50; 6-30 to noon, or noon to 7 p.m. Rs. 3·50; one hour, Rs. 1·50; second hour, Rs. 1; subsequent hours, 75 cents. With two horses, Rs. 10, 6, 2, 1·50, and 1 respectively. Round Moon Plains, round the lake, to Mahagastota and back, or Ramboda and back, with not more than 3 passengers, Rs. 3·50; each additional passenger, Rs. 1·50; one hour's detention allowed; Rs. 1 per hour for additional detention.

From the railway station, per seat in coach, for one mile, for each passenger, 50 cents by day, 75 by night; for a private carriage, within one mile, per half hour, one-horse carriage for two passengers, Rs. 1; two-horse carriage for three passengers Rs. 1·50. One quarter extra after 7 p.m.

NUWARA ELIYA FROM THE RAMBODA PASS.

To Hakgala and back, allowing two hours detention at the gardens, for 3 passengers, Rs. 6; to Nanu-oya and back, Rs. 5; to Kandapola and back, Rs. 6. Each extra passenger to Hakgala or Kandapola, Rs. 2; one or two extra to Nanu-oya, Rs. 3.

Rickshaws, with one coolie, first hour 50 cents, second hour 25 cents, subsequent hours 25 cents; with two coolies, 75 and 37½ cents (two are necessary to go to Hakgala or on any of the hilly roads). Special rates, to Hakgala and back, Rs. 3; to Nanu-oya and back, Rs. 3·50; Ramboda Pass and back, Rs. 1·50; round Moon Plains or round the lake, two coolies, Rs. 2. Trains, see p. 148.

OHIYA. Uva Province, on the railway to Bandarawela (p. 161). Elevation 5,877 feet. Path to Horton Plains (q. v.). Railway Receiving Post Office.

PADUKKA. Western Province, Colombo district, on the railway to Avisawela, 1 hour 20 minutes from Colombo. Population 1,097. Post and Telegraph Office.

PALLAI. Northern Province, Jaffna district, $24\frac{1}{4}$ m. from Jaffna on the road (p. 143) and railway (p. 165) to Colombo. Post and Telegraph Office. Resthouse. Good tobacco is grown in the district.

PANADURE. Western Province, Colombo district, 16 m. from Colombo by road (p. 140) and rail (p. 166). $35\frac{3}{4}$ m. to Ratnapura (p. 147). Population 3,845. Post and Telegraph Office. Resthouse. Hospital.

Local official: Police Magistrate.

PANNIPITIYA. Western Province, Colombo district, on the railway to Avisawela, 40 minutes from Colombo. Railway Receiving Post Office.

PANWILA. Central Province, Kandy district, 3 m. from Wattegama station (p. 145). Village Receiving Post Office. Resthouse.

PARANTHAN. Northern Province, Jaffna district, on the railway, about 6 m. south of Elephant Pass, 2 hours from Jaffna.

PASSARA. Uva Province, on the road from Badulla ($11\frac{1}{4}$ m.) to Batticaloa (p. 145). Roads to Naminakuli and Madulsima (p. 146). Population 450. Elevation 3,160 feet. Post and Telegraph Office. Resthouse. Gun Club. Planters' Association (9 estates, with 6,000 acres, mostly tea). Coach to Badulla leaves 9-45, arrives Badulla 12; returns 3-30, arrives Passara 5-30. To Lunugala leaves 5-40, arrives 8-30 p.m., leaves Lunugala 7 a.m., arrives Passara 9-30.

PATTIPOLA. Uva Province, near the summit level of the railway (p. 160). Path to Horton Plains, 6 m. Railway Receiving Post Office. Resthouse. The climate here, at 6,200 feet, is pleasant, and the neighbourhood has fine forest and patana, and good fishing (license required).

PERADENIYA. Central Province, Kandy district, 4 m. from Kandy on the Colombo road (p. 137). To Deltota 19 m., to Gampola 9 m. Elevation 1,572 feet. Post and Telegraph Office. Excellent Resthouse, in which rooms are reserved for scientific visitors.

There is a fine bridge over the Mahaweli-ganga, from which, and from the far side of which (toll), excellent views are to be obtained, but the interest of the place centres in the world-famous Botanic Gardens. Visitors usually make the mistake of coming at midday, when it is hot for walking, and

when there are no long shadows, but the gardens can be seen to much greater advantage by coming after 4 p.m. or before 9 a.m., when the shadows add immensely to the beauty of the views. The southern half, at least, of the garden, should be explored on foot. Complete illustrated guides, costing Rs. 2, prepared by Mr. Macmillan, the Curator, can be procured at the entrance, where visitors are invited to leave their names in a visitors' book which contains many signatures from all parts of the world.

The visitor who desires to thoroughly study the garden is recommended to stay a night at the resthouse, and buy the local guide book, but the following brief account may serve for those who only spend a couple of hours there.

Entering by the gate upon the Kandy road—the only entrance into this horseshoe-shaped garden, which is almost surrounded by the river—a fine almost circular clump of palms confronts one. Among these may be noticed the coconut (p. 47), the arecanut (p. 52), the West African oil palm, the small palm-like *Carludovica palmata* of Central America, from whose leaves, cut into strips and bleached, Panama hats are woven, the date-palm, and many others.

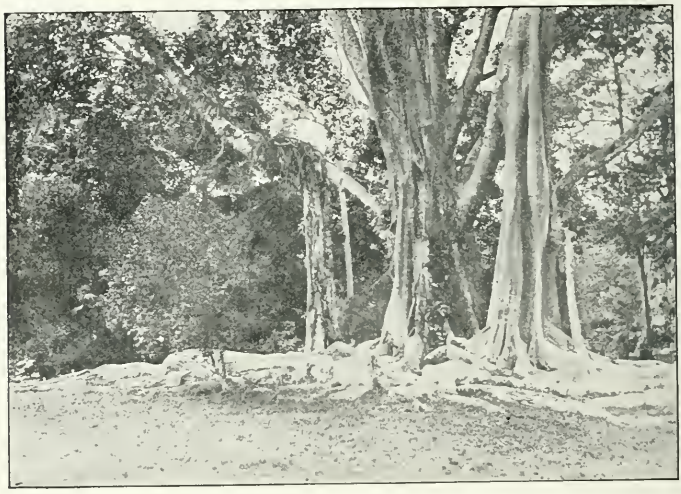
Taking the road to the left at the gate (Lake Road), there will be noticed to the left, across a strip of grass, a fine but now rapidly decaying avenue of the indiarubber trees of Assam (*Ficus elastica*), whose immense roots, prolonged above the ground into plank-like buttresses, wander over the soil for considerable distances, twining like great snakes. At the first curve, the road passes under a tree of *Amherstia nobilis*, perhaps the most beautiful flowering tree of the tropics, but extraordinarily difficult to propagate. The large pink flowers have a superficial resemblance to orchids, and are produced at all times of the year, but especially from December to March. The young leaves are pinky brown in colour, and hang down in a bunch as if they had been "poured out of the bud." The explanation of this phenomenon, which also occurs in Brownea and Saraca, likewise to be seen in the gardens, is somewhat difficult. Just beyond this tree, on the left, is a Brazil nut (*Bertholletia*), and opposite to it, a little way back in the grass, is the tall straight trunk of the famous Upas tree of Java (*Antiaris toxicaria*), a harmless enough tree, about which terrible stories were put into circulation a century or so ago. Beside it is the Ceylon form of the same tree, *Antiaris innoxia*. A little further on Jonville Drive turns off to the right, and continuing straight on, we pass on the right a jak tree (p. 66), and then turn to the left, between two very tall clumps of bamboo, past the pond. The bamboo on the right is the large bamboo of Java, (*Gigantochloa aspera*), while that

on the left is the truly magnificent giant bamboo of the Malay Peninsula (*Dendrocalamus giganteus*), for which the Peradeniya garden is famous, and of which there are many clumps scattered about. It grows to a height of 100 feet or over, and has a thickness of 8-10 inches at the base. The young shoots appear like shoots of giant asparagus, round the edge of the clump, in June of each year, and rapidly grow to their full height, at a rate often of 15 inches a day. In the pond are several trees of the pith tree (*Herminiera*). The tree is of lowly growth, but the base of the stem thickens out very much, and the wood of this thickened portion is like pith. It is cut into thin shavings, from which the pith hats, or topees, of commerce, are made.

Passing the pond, and the footpath to the left, there lie upon our left a number of trees of the cacao, cocoa, or chocolate, *Theobroma Cacao*, which is now so largely cultivated in Ceylon. These trees are all of the Forastero varieties, which have in Ceylon largely replaced the Caraccas kinds formerly grown, and which yielded beans of lighter colour, selling for higher prices. Just beyond the cacao, on the left, will be seen, some way back from the road, a plantation of a dozen or so of tall trees with spiral markings on the lower part of their trunks. These are the famous Para rubber trees (*Hevea brasiliensis*), now so much planted in Ceylon, and the spirals are the marks of old tappings (p. 52). A few yards further on, we enter the avenue of talipot palms (p. 68) which is now in perhaps the finest possible condition. Behind it, on the left, is the herbaceous garden, in which the smaller plants are grown, arranged by families, and just beyond it, on the right, a small plantation of the kola nut of West Africa (*Cola*). On the left, at the fork of the road, is a tree of the breadfruit (p. 65), with large divided leaves, and then taking the right hand road, we pass the systematic collection of bamboos on the right, of palms on the left, while some way round is a fine view of the bridge over the Mahaweli-ganga.

Returning past the pond, we may turn to the left round the Java bamboo and in a few yards come out upon the river bank. On the right, at the corner, is a plant of *Petraea*, which when in flower is a lovely sight, with its purple and turquoise flowers, produced in large numbers. A fine clump of giant bamboos is on the left, and a miscellaneous rockery on the right, at the end of which we turn to the right up the Jonville Drive, along the side of the Great Lawn, the views across which are particularly beautiful in the morning or evening. The trees on the edge of the lawn are mostly sapus (p. 68; *Michelia*). The forest-covered hill in the background is upon the Experiment Station on the other side of the Mahaweli-

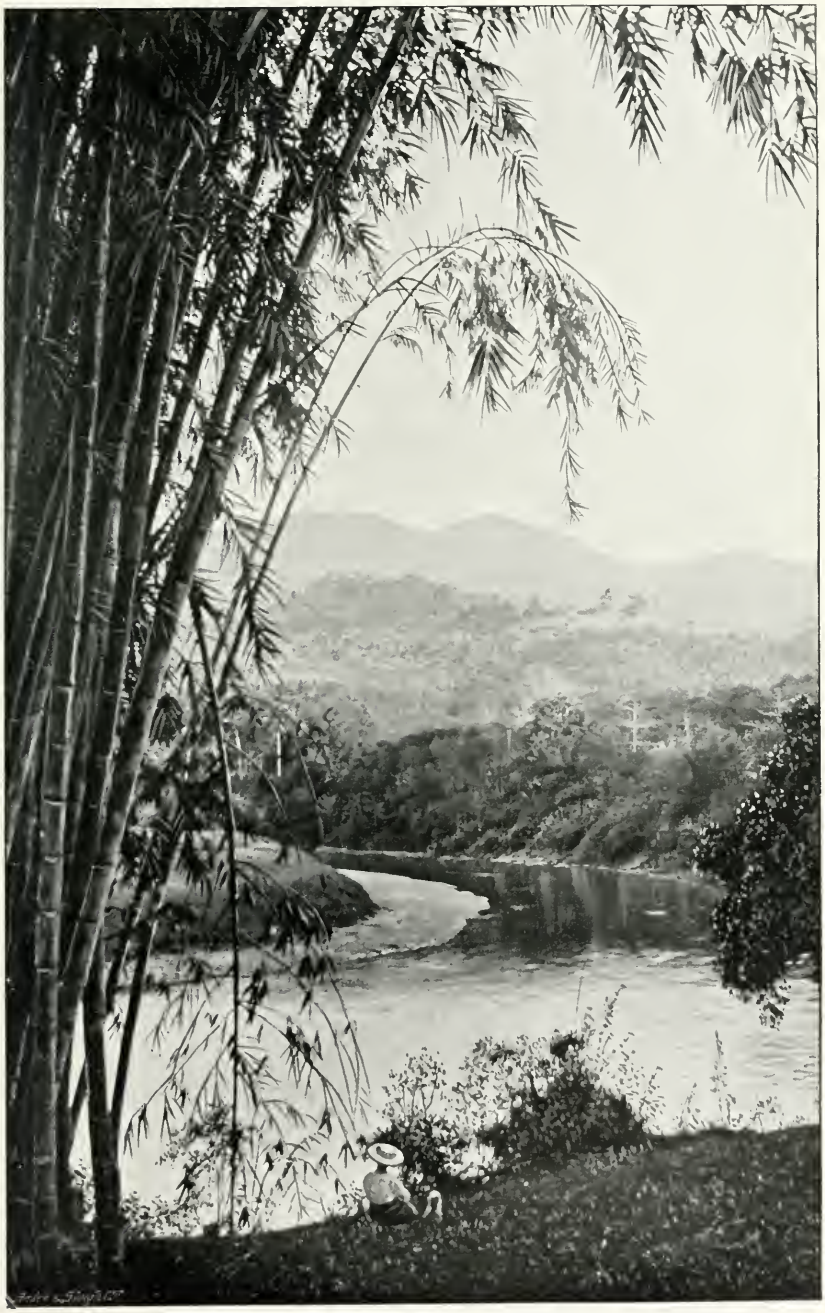
ganga. Arriving at the cross roads, the turn to the right may be taken, and the Gardner monument visited, which stands in a very beautiful position on the crest of the hill. Gardner was Director of these gardens in 1845-9, but is better known as a great Brazilian traveller. Returning straight from the monument, along Monument Road, on the right at the cross roads is a tree of the large fan-leafed palm *Lodoicea Seychellarum*, the famous double coconut of the Seychelle Islands, whose curious fruit used to be found floating in the Indian Ocean and sold for high prices before the native place of the plant was known. Monument Road presently crosses the main drive, recognised by its long shady aspect, and is continued



ASSAM RUBBER TREE.

as Liana Drive, which should be followed, and which is one of the most striking roads in the garden, on account of the tall ancient trees, covered with heaven-aspiring climbers, with which it is shaded. Coming out presently at a little tank, there is on the right, and also in front, a magnificent tree of the Assam indiarubber (above), while at the entrance to a shady path going in to the right, are the extraordinary stems of a Bauhinia climber.

To the left is the flower garden, in which are two conservatories. The nearest should be first visited, and is an orchid house, in which, more especially in the dry weather, many orchids and other flowers are to be seen. From the



VIEW IN PERADENIYA GARDENS. *(See page 225.)*

[*Photo by J. C. Willis.*]

seat just beyond it there is a pretty view. Turning to the left we come to the octagon conservatory, in which are all kinds of ornamental foliage plants. Between the two houses, and round about, are numerous beds of flowers &c., arranged on the general principle of massing single colours in large masses. Among the most striking of these are the beds of Poinsettia, a plant with the little inconspicuous flowers surrounded by large scarlet leaves, which last much longer than the flowers.

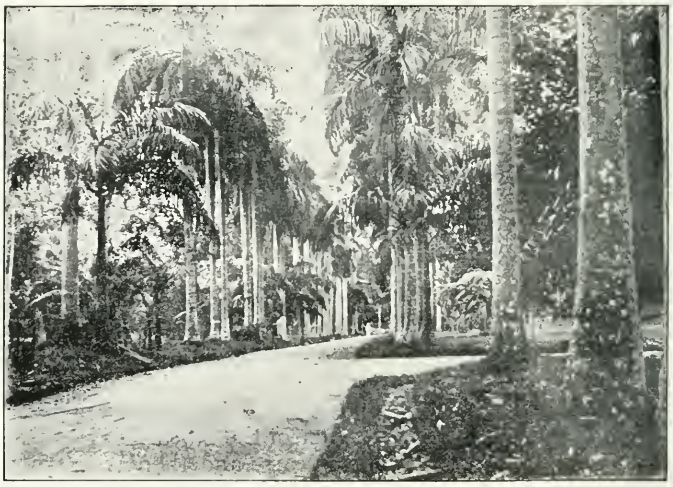
Turning to the right out of the octagon house, we come to the very beautiful fernery, in which all kinds of ferns and shade-loving plants are grown under the shade of ancient trees, often themselves hung with splendid creepers. Emerging from the fernery on the right, we may return down another path, past the end of the avenue of Palmyra palms (p. 64) to the orchid house, and rejoin the carriage.

Continuing along the same road, we presently come to the bank of the river, under four magnificent specimens of *Pithecolobium Saman*, the great shade tree of the Ceylon roads (p. 68) and may drive round by the river for a couple of miles. About 50 yards from the Pithecolobium trees is a clump of giant bamboos on the river bank, past which there is one of the best views in the garden (see Frontispiece). On the left is the nursery, beyond which on the left is the avenue of Palmyra palms (p. 64 and above), and then we pass through an old avenue of the royal palm of Cuba, now decaying. Beyond this we go into a depression of the road between some magnificent clumps of giant bamboo, and here there is often to be seen a large colony of the flying-fox, hanging up in the trees (p. 17). At the corner of the North Drive further on, there is a pretty view up-stream, and then we pass on the right the path leading down to the ferry that runs to the experiment station. Beyond this, the point of the garden is occupied with what is intended ultimately to be a Ceylon jungle, but which at present is in the untidy transition stage. Driving down the other side of the garden, we pass a seat where there is a lovely view up-stream to the bridge, and then come to the West Road, where we turn to the left and enter the Great Circle, a large lawn with a clump of palms in the centre. Driving round this to the left, there are passed many handsome trees. The first road on the left is a young avenue of royal palms, then comes the North East Walk, and then a path up to the pretty Kandyan building that forms a memorial to Dr. G. H. K. Thwaites, who was Director here from 1849 to 1880. The building should be visited for the sake of the view from it. Continuing round the circle, and taking the first road to the left, into the Main Drive, this is

one of the most striking and beautiful roads in the garden, and should be followed to the first cross roads.

(Here * there are two roads on the right; the right hand one leads to the departmental offices, that on the left to the new Economic Museum, which will probably be ready for opening about June 1908; guides will be for sale at the Museum, and as it is not yet arranged, there is no need to describe it here).

Continuing down the main drive, we arrive at the clump of palms near the gate. On the left hand side is the nutmeg grove, a footpath leading between old trees of nutmeg and clove to a little fernery, in which there will soon be built



AVENUE OF ROYAL PALMS.

a conservatory for plants requiring always to live in an extremely damp atmosphere. Beyond this are some plant houses, one roofed with glass, in which are some interesting forms (a fine collection of ferns in the one to the right), and beyond are the offices of the Curator in whose charge the garden is, where seeds &c., may be purchased.

The department of the Royal Botanic Gardens, though the old title is retained, is really a department of agriculture, and keeps up four botanic gardens: Peradeniya, Hakgala near Nuwara Eliya, Nuwara Eliya and Heneratgoda; two

* This is put in brackets as the new road and Museum will not be open for some time yet.

experiment stations, for experiment with agricultural crops, at Peradeniya (on the other side of the river; for permission to visit apply to the Superintendent in charge) and at Mahailuppalama near Anuradhapura; a scientific staff consisting of Assistant Director (who is also botanist to the institution), Entomologist (who attends to insects and diseases due to them), Mycologist (who does the same for fungi), and Chemist. It also has charge of the school gardens (p. 103) of which there are now over 100 in different parts of the island. The headquarters of the department, which is in charge of a Director, are at Peradeniya.

PERADENIYA JUNCTION. A station on the Kandy railway (p. 154), with Railway Receiving Post Office.

POINT PEDRO. Northern Province, Jaffna district, at the extreme northern point of the island, 10½ m. from Kodikamam, 14 m. from Chavakachcheri, 21 m. from Jaffna (p. 144). The round the island steamers call here and the town is worth a visit. Population 3,000. Post and Telegraph Office. Resthouse. Hospital.

Going up from the wharf, a Hindu temple is passed on the right, and a large bathing tank, and presently we come to the large open-air and covered market, where palmyra leaf elephants and many other interesting articles can be bought very cheaply (cf. Jaffna). At the side of the market, on the left, is a fine old tamarind tree, under which Baldaeus, an early missionary of Dutch times, preached. Further on, upon the left, is a road leading to another Hindu temple, beside which may usually be seen a car of Juggernath—under which victims do not throw themselves in Ceylon.

Coach to Kodikamam leaves at 5-30 a.m. and 4-30 p.m., arrives Kodikamam 8 and 6-45; leaves Kodikamam 8-40 a.m., and 7-45 p.m., arrives Point Pedro 11-10 and 10. Fares Rs. 1·50, 1·12, 75. Steamers round the island call here fortnightly in each direction.

POLGAHAWELA. North-Western Province, Kurunegala district, a station on the line to Kandy (p. 151) and 8 m. by road from Kegalle, 11¼ m. from Kurunegala. Population 709. Elevation 241 feet. Post and Telegraph Office. Resthouse. Trains to Colombo (2—3 hours) at 4-53, 7-8, 9-14, 9-30, 12-40, 4-0, 4-25, 6-35, 8-10; to Kandy (2 hours) at 9-15, 10-33, 4-3, 9-27, 11-46; to Kurunegala (½ hour) at 9-30, 1-0, 4-20, 8-20. Coach to Kegalle at 9-30 and 4-30, arriving at 11-15 and 6-15; returning from Kegalle at 6-45 and 1-45, arriving at Polgahawela 8-30 and 3-30. Fares Rs. 2·50, 1·50, 1.

POLONNARUWA. North-Central Province, 27 m. from Habarane by gravel road, passable for motors in the early part of the year. There are one or two bungalows there,

which are sometimes unoccupied (apply to the G. A. at Anuradhapura), and a resthouse is being constructed. For the interesting ruins see p. 126.

PUNDALUOYA. Central Province, Nuwara Eliya district. A planting district with about 12 estates and 5,000 acres, mostly tea. Outlet *via* Watagoda Station, or *via* road to Gampola (p. 142). Post and Telegraph Office at Pundaluoya village.

PUSSELLAWA. Central Province, Kandy district, on the road from Kandy to Nuwara Eliya (p. 142). Post and Telegraph Office. Hospital. Planters' Association. About 47 estates with 17,000 acres, mostly tea.

PUTTALAM. North-Western Province, capital of the Puttalam district. Population 1901, 5,115. 1907, 5,205. Post and Telegraph Office. Resthouse. Hospital.

Local officials: Assistant Government Agent and District Judge.

Coach to Chilaw, leaves 5 a.m., arrives 10-30; leaves Chilaw 4-10 p.m., arrives 9-30. Fares Rs. 7, 4, 2·50.

PUWAKPITIYA. Western Province, Colombo district, a station on the Kelani Valley Railway, with Railway Receiving Post Office, 2 hours from Colombo, 20 minutes from Avisawela.

RAGALLA. Central Province, Nuwara Eliya district, at the terminus of the narrow gauge line from Nanu-oya. Resthouse.

RAGAMA. Western Province, Colombo district, on the railway to Kandy (p. 150). The cooly camp, in which the immigrant coolies from India are quarantined for some time after arrival, is close to the station, and the great stone quarries, from which stone is obtained for the Colombo Harbour works, are at Mahara, close by, where also is a convict station. The new line to Negombo, now under construction, starts here.

RAKWANA. Sabaragamuwa Province, Ratnapura district, 14 m. from Pelmadulla and 26 m. from Ratnapura, (p. 146). Population 839. Post and Telegraph Office. Resthouse. Hospital. Planting district, with about 24 estates of 5,000 acres, mostly tea and rubber. Coach to Pelmadulla and Ratnapura, leaves Rakwana 5-20 a.m., arrives Pelmadulla 8-20, Ratnapura 10-20; leaves Ratnapura 3 p.m., Pelmadulla 5-15, arrives Rakwana 8-15. Fares to Ratnapura Rs. 10, 7, 3.

RAMBODA. Central Province, Nuwara Eliya district, on the road from Gampola, 20½ m., to Nuwara Eliya 13½ m. (p. 142). Population 160. Elevation 3,500 feet. Post and Telegraph Office. Resthouse. Hospital. Planting district, with about 13 estates and 4,000 acres of tea.

THE KALU-GANGA AT RATNAPURA. *(See page 229.)*

RAMBUKKANA. Sabaragamuwa Province, Kegalle district, on the railway from Colombo to Kandy (p. 151). 10½ m. by road to Mawanella (p. 138). Population 336. Elevation 313 feet. Post Office. Resthouse. Trains to Colombo at 4-34, 6-40, 8-50, 12-20, 3-40, 7-50, to Kandy at 9-35, 11-5, 4-25, 10-0, 12-15.

RANGALA. Central Province, Kandy district, 4 m. from Teldeniya. Post Office. Planting district, with about 14 estates and 6,000 acres, mostly tea and cardamoms.

RATNAPURA. The capital of the Sabaragamuwa Province, 26¾ m. from Avisawela, 35¾ m. from Panadure, 27 m. from Balangoda (roads see pp. 146, 147). Population 1901, 4,084. 1907, 4,481. Elevation 109 feet. Post and Telegraph Office. Resthouse. Library. Literary Club. Hospital.

A pretty little town, in a very rainy situation (rainfall 152 inches a year, mean temperature 79.2°). Planting district, with about 30 estates of 15,000 acres of tea, rubber, &c.

Local officials: Government Agent, Office Assistant, District Judge, Provincial and District Engineers, Assistant Superintendent of Surveys, Medical Officer.

Carriage hire: 6-30 a.m. to 7 p.m. Rs. 4; 6-30 to noon, or noon to 7, Rs. 2, first hour Rs. 1, second 50 cents, subsequent hours 25 cents. After 7, one quarter more. Hackeries, per hour 25 cents, per mile 20 cents.

Coach to Avisawela, horse, leaves Ratnapura 10-50 a.m., arrives Avisawela 3-20; leaves Avisawela 11 a.m., arrives Ratnapura 3 p.m.; bullock, leaves Ratnapura 9 p.m., arrives Avisawela 5 a.m.; leaves Avisawela 9-30 p.m., arrives Ratnapura 5 a.m.

RATTOTA. Central Province, Matale district, 6¾ m. from Matale. Post Office.

SIGIRIYA. Central Province, Matale district, 5½ m. from Inamaluwa on the Trincomalie road (p. 144). Resthouse. For ruins see p. 112.

TALAWA. North-Central Province, 8 m. from Anuradhapura on the Kurunegala road (p. 142) and 23½ m. from Kekirawa. Railway Receiving Post Office.

TALAWAKELE. Central Province, Nuwara Eliya district, on the railway to Nanu-oya (p. 159), and on the road to Lindula and Nuwara Eliya (p. 141.) Elevation 3,932 feet. Population 745. Post and Telegraph Office. Resthouse.

There are some fine falls on the river on the way to Craigie Lea, and pretty walks near the town. Coach to Agrapatna leaves 3 p.m., arrives 5-30; leaves Agrapatna 7-30 a.m., arrives Talawakele 10.

TANGALLA. Southern Province, Hambantota district, 22¼ m. from Matara, and 25¼ m. from Hambantota (p. 141).

Population 2,333. Post and Telegraph Office. Resthouse. Hospital. Coach from Matara, leaves at 10-30 and 1-30, arrives 2-30 and 5-30; leaves Tangalla 6 and 11-30, arrives 10 and 3-30. Fares Rs. 5, 2·50, 1·50. Coach also to Hambantota.

TEBUWANA. Western Province, Kalutara district, 6 m. from Kalutara, in a rubber planting district. Village Receiving Post Office. Resthouse.

TELDENIYA. Central Province, Kandy district, 15¼ m. from Kandy *via* Katugastota, 13 m. *via* Gonawatte ferry. Population 712. Post and Telegraph Office. Resthouse. Hospital. The neighbourhood is very pretty, and pleasant walks may be had by the river, especially on the far side from the resthouse. Tobacco is a good deal cultivated in this district.

TRINCOMALIE. Eastern Province, capital of the Trincomalie district, 68 m. from Dambulla by road (p. 144). Population 11,295. Post and Telegraph Office. Resthouse, kept by "Tamby," who has a fund of recollections of Trincomalie and its inhabitants. Club. Churches. Hospital. Friend-in-Need Society.

"Trinco" is one of the most beautiful and interesting places in the island, and should be visited if possible. The coach is very slow and wearisome, and the simplest way to see it is to take the round the island steamer on its "north-about" journey, when it calls at Trinco on Saturday morning, and does not as a rule leave till Sunday night.

The steamer enters first the outer harbour, a large almost circular bay, several miles across, in which the water is too deep for anchorage, and into which, on the south side, the Mahaweli-ganga may be seen to enter as a long brown line, gradually widening. The north side of this bay is rocky, the south flat. The north has a projecting cape, the south side a less hilly one (Foul Point, with lighthouse). The steamer soon turns to the north into the inner harbour, in which though the water is deep to the edge, it is not too deep for anchorage. This harbour is much broken up by bays running into the land, and has Sober Islands, great and small, so-called because no liquor could be procured upon them, standing almost in the entrance. On the far side of Great Sober Island is French Passage, through which the French fleet escaped as the English entered. The steamer enters the second eastern bay, and the hill on the right is covered with naval and military buildings, while the civil town is to the left, mostly lying on the flat and narrow strip of land here separating the harbour from the open sea. Going straight to the resthouse by one of the roads leading up from the jetty, we look out from thence over the esplanade to the sea, while

THE HARBOUR OF TRINCOMALEE FROM ADMIRALTY HOUSE.

(See page 230.)

PLATE LXII.

Fort Frederick stands on the hill a little to the right. Various curios are usually brought for sale, including very pretty shells not seen elsewhere in Ceylon as a rule, such as nautilus, and sponges that will not hold water.

Fort Frederick is the most interesting thing to be seen; it is an old Dutch fort standing on a fine rocky promontory said to have been formerly an island, the esplanade having been made by filling up an arm of the sea that formerly lay here. The fort is now deserted, and the great gun on the summit of the rock looks pitiful to see. Beyond it is the Swami rock, to which numerous Hindu pilgrims resort every year, and which is a particularly sacred spot. Here also is a pillar to the memory of a Dutch girl who is said to have thrown herself from the rock when deserted by the man to whom she was engaged to be married. Trips to Sober Island, and to other parts of the harbour and town are also to be recommended.

Local officials: Assistant Government Agent, Police Magistrate, District Engineer, Medical Officer.

Carriage hire: 6-30 a.m. to 7 p.m. Rs. 4; 6-30 to noon, or noon to 7, Rs. 2, half an hour 50 cents, an hour Rs. 1; each subsequent hour 25 cents.

Coach to Dambulla, leaves 3 p.m., arrives Dambulla 10-30 a.m., next day, Matale 3-30; leaves Matale 10, Dambulla 3, arrives Trincomalie 9 a.m. next day.

UDAPUSSELLAWA. Central Province, Nuwara Eliya district, 22 m. from Nuwara Eliya. Population 195. Post and Telegraph Office. Hospital. Planters' Association, with 27 estates and 11,000 acres, mostly tea.

VAVUNIYA. Northern Province, Mullaitivu district, on the rail and road to Jaffna (pp. 143, 164). Population 566. Post and Telegraph Office. Resthouse. Hospital. The little tank to the east of the town is pretty, and there is a pleasant walk along the bund. Trains to Colombo (8 hours) at 12-20 and to Jaffna (4½ hours) at 3-40.

VEYANGODA. Western Province, Colombo district, on the rail to Kandy (p. 150) and with roads to Negombo 17½ m. and to the main Kandy road (p. 138). Elevation 59 feet. Population 356. Post and Telegraph Office. Resthouse. The neighbourhood is mostly coconut plantations, mixed gardens, and paddy fields. Trains to Colombo (1-1½ hours) at 5-44, 7-0, 8-30, 10-3, 10-45, 1-45, 4-50, 5-40, 7-28, 9-0; to Kandy (3 hours) at 8-25, 9-10, 3-9, 8-5, 10-52.

WAGA. Western Province, Colombo district, on the line to Avisawela, 1 hour 40 minutes from Colombo. Railway Receiving Post Office.

WATAGODA. Central Province, Nuwara Eliya district, on the railway to Nanu-oya (p. 159). Road to Pundaluoya

and to the Kandy-Nuwara Eliya road (p. 142). Post and Telegraph Office.

WATTEGAMA. Central Province, Kandy district, on the railway to Matale (p. 155) and 8½ m. from Kandy by road. Roads to Elkaduwa, Teldeniya, &c. (p. 145). Population 471. Elevation 1,620 feet. Post and Telegraph Office. Resthouse. There are many cacao estates (p. 58) here.

WELIGAMA. Southern Province, Matara district, 17¼ m. from Galle and 10 m. from Matara (p. 140) by road or rail. Population 7,582. Post and Telegraph Office. Resthouse. This is a pleasant place at which to stay, lying on a beautiful bay facing south. Professor Haeckel has written a somewhat enthusiastic account of it in his "Ceylon."

WELIMADA. Uva Province, on the road from Nuwara Eliya 17 m., to Badulla, 19¼ m. (p. 145.) Footpath to Bandarawela, very sunny, but quite pretty, 10 m. Post Office. Resthouse.

WELLAWATTA. A southern suburb of Colombo, on the way to Mount Lavinia.

WELLAWAYA. Uva Province, on the road to Hambantota (p. 146). Post Office. Resthouse.

WILSON'S BUNGALOW. Uva Province, on the road from Nuwara Eliya to Badulla (p. 145). Village Receiving Post Office. The country round is composed of dry and sterile patanas, but in the village there are many vegetable gardens, for the supply of Nuwara Eliya.

YAKDESSA. A division of Dolosbage.

YATIYANTOTA. Sabaragamuwa Province, Kegalle district, on the road from Colombo to Kandy *via* Ginigathena (p. 139) and at the terminus of the narrow gauge line from Colombo (p. 169). Post and Telegraph Office. Resthouse. The district is hilly, mostly planted in tea and rubber.

Trains to Colombo (3¼ hours) at 5-20, 7-35, 3-5, returning at 7-30, 2-30, 6-30.

PART IV.—GAMES AND SPORTS.

Chapter XIV.

SPORT IN CEYLON

BY HARRY STOREY. *

ONE great attraction which Ceylon offers to visitors is undoubtedly the sport to be obtained with gun and rod, although, in common with all other sporting countries, the march of progress and civilisation, modern weapons, cheap ammunition, and, in Ceylon's case, lax administration of the game laws, have caused such a diminution in the numbers of game of all species as to threaten some species with a near approach to extermination, and may end, if matters do not improve, in putting Ceylon out of the list of sporting countries altogether. However, if the visitor knows where to go, a fair amount of sport may still be indulged in, though it is not easy even for an experienced resident to secure what may be called a fair "bag," and good trophies are very difficult to obtain.

The list of Ceylon game, great and small, comprises the following:—

Elephant (same species as the Indian elephant).
Buffalo (*Bos bubalus*, the Indian buffalo).
Elk (so-called; *Cervus unicolor*, the Indian sambhur).
Spotted Deer (*Cervus axis*, the Indian chital).
Red Deer (so-called; *Cervus muntjac*).
Black Bear (Indian sloth-bear; *Melursus ursinus*).
Leopard.
Wild Boar.
Crocodiles.
Hares (*Lepus nigricollis*, the black necked hare).
Various species of Wild-cats and Civets.
Peafowl.

* I am much indebted for this chapter to Mr. Storey, now well known as the author of "Hunting and Shooting in Ceylon," (Longmans, 15s., to be obtained locally from The Colombo Apothecaries Co., Ltd.,) a book which should be in the hands of every one interested in sport in the island. J. C. W.

Jungle fowl.
Snipe (the pin-tail).
Pigeons (half a dozen varieties).
Quail (three varieties).
Grey and Painted Partridge.
Teal and Duck.

And many other species of birds and small mammals of interest to naturalists.

As to distribution and habits, taking the list in order, elephants may be said to inhabit every portion of Ceylon, from sea level to the highest hills, wherever there may be found jungle enough to afford them cover. It is hardly necessary to suggest any particular portion of the country to which to go for the purpose of shooting elephants, as they may be found in practically any remote or sparsely inhabited part of the country. They may be said, however, to be most numerous in the eastern, southern, north-western, north-central, and northern provinces.

They usually remain in the jungle during the day, resting, or feeding quietly on the leaves and bark of forest trees, and commence to travel abroad in earnest about 5 p.m., coming out into open "park" country or villagers' cultivated lands in search of luxuries during the night, returning to cover at daybreak.

Their sight and hearing are both rather deficient, but their sense of scent is very keen, so that the wind must be very carefully noted when making an approach for a shot. They are usually tackled in the jungle, and the Ceylon practice is to get to the closest possible quarters and then aim for the brain, either by the front shot (between the eyes), the temple shot (midway between eye and ear), or the ear shot (full into the orifice of the ear, or near it). Each of these shots, if successful, will find the brain and cause instant death. Any modern rifle, from ·303 upwards, with nickel covered projectile, will suffice to kill an elephant.

Permission is readily given to kill a dangerous rogue, but a license to kill an ordinary elephant costs Rs. 100 and can be granted or withheld at discretion by the Government Agent of the province in which it is desired to shoot.

The buffalo is usually to be found in any remote portion of the low-country jungles, frequenting country where there is plenty of grass and water, such as the ancient irrigation tanks and swamps to be met with here, there and everywhere. If undisturbed they will lie in the water all day, and graze during the night, early morning, and evening. They are usually pretty wide-awake, and need careful approach, as they may at times turn "nasty." A license to shoot a buffalo

costs Rs. 25 and the issue is discretionary as in the case of the elephant.

The elk (so-called) may be found at all elevations from the low-country jungles to the forests of the highest hills. In the low-country it is being rapidly exterminated by the natives, but in the hills it is more carefully protected by the sporting planters for hunting "to the knife." The low-country sportsman will get little chance of a shot at an elk, as they seldom come out into the open except at night.

The spotted deer are the most numerous of the deer species in Ceylon, and are frequenters of the low-country wherever there is grazing ground such as parks, plains and irrigation tanks. They are gregarious, and by no means nocturnal in their natural habits, though driven to be so in parts of the country where they are most harassed and shot at. The bucks carry elegant antlers, and afford very excellent stalking sport, or "still hunting." The best country for deer is in the north-central, eastern, Uva, and southern provinces.

The red deer (muntjac) is also met with in the low-country, and is usually a forest dweller and not gregarious, so that a sportsman will only see an occasional one, perhaps darting across a path, or will hear one barking in the adjacent forest. They also inhabit the hill forests up to a fairly high elevation, and there afford good sport with dogs.

The black or sloth bear is to be met with in almost any remote part of the low-country. It is a forest dweller, but likes to be within reach of "park" country in which to roam at nights. Its food consists of fruit, honey, and the larvæ of ants and insects. During the wet season of the year these animals may be occasionally met with wandering in search of food, but, as they are very shy animals, they frequent only the most remote jungles, and the only certain method of shooting them is by water-hole watching at night during the dry season. They can be very dangerous at times if they take it into their heads to attack.

The leopard frequents any country where his favourite food (deer) may be found, but he is not averse to an occasional bullock, pig, or dog. He has no fixed abode, and is only likely to be met with by accident, or by watching over a kill or bait or at a water-hole. Leopards are fairly plentiful in the low-country, and also haunt the hill jungles to the highest elevations.

Wild boar are ubiquitous and are very common in Ceylon. They may be shot in the low-country, or hunted with dogs in the hills. Ceylon does not contain any "pig-sticking" country.

Crocodiles may be found in any tank or river in the low-country, and are very plentiful, often reaching a very large size.

Peafowl are nowhere very plentiful except perhaps in portions of the southern province. These grand birds are protected by a close season.

Jungle fowl are to be found in all parts of Ceylon, and afford excellent sport for an "off-day." The species is peculiar to Ceylon, differing in some degree from the Indian bird.

Snipe come in September—October, and remain until April, and may be shot in any low-country swamp or paddy field. In a favourable year they visit the country in vast numbers, and afford splendid sport.

Pigeons abound everywhere, particularly in the low-country and during the fruiting season offer fine sport.

Quail may be found in any grassy land or "dry grain" cultivated lands, but nowhere in such numbers as to promise a big bag.

Grey partridges are to be found on the northwest and northern coasts and islands in fair numbers, and afford good sport over dogs. The painted partridges are only found on the Uva patanas, and about Bandarawela.

Teal and duck abound in the low-country tanks, swamps, and lagoons, and give grand sport to anyone visiting the low-country.

Hares abound all over the country, and afford good sport on estates, where possibly no other game animals exist. Most planters keep hunting dogs of some sort or other, and these hunt the hares very eagerly.

The civets, mongooses, and wild cats also afford an irresistible attraction to dogs, and they will run themselves to a standstill over these strong-scented animals.

A license to shoot "game," which includes elk, spotted deer, red deer, and peafowl, costs Rs. 3·50 and may be obtained at any Government kachcheri.

Bears, leopards, pig, and "vermin" require no license, but may be shot anywhere and at any time.

A license is required to "possess and carry a gun" and costs Rs. 2 for any but a single-barrel non-magazine gun (Rs. 1).

Ordinances relating to "Wanton destruction of Game" are No. 10 of 1891 and No. 11 of 1902, and may be procured at the Record Office, in Colombo, or at any kachcheri.

Close Seasons.

Western Province	Game	1st June to 31st Oct.
,,	Pigeons, &c.	1st Mar. to 31st May
,,	Peafowl	1st Nov. to 31st Mar.
Central	Game	1st June to 31st Oct.
Northern	Game	1st May to 30th Sept.
,,	Peafowl	1st Nov. to 31st Mar.
Southern	Game	1st June to 31st Oct.
Southern (Magam Pattu)	Game	1st June to 31st Oct.
	Peafowl	1st Nov. to 31st Mar.
Eastern	Game	1st June to 1st Sept.
	Peafowl	1st June to 31st Oct.
North-Western	Game and Peafowl	30th June to 31st Oct.
North-Central	Game and Peafowl	1st June to 31st Oct.
Uva	Game and Peafowl	1st June to 31st Oct.
Sabaragamuwa	Game and Peafowl	1st July to 31st Oct.

Visitors to Ceylon who do not "know the ropes," or have not the advantage of knowing friends in the island, will probably have to depend upon a professional "shikari" hired in Colombo. The names of these men can usually be ascertained at any of the hotels, and they will if required provide everything for outfitting a jungle trip.

Off the railways, transport is usually by means of native bullock carts or carriers, and such carts can be hired at from Rs. 1·50 to Rs. 5 per day inclusive—all depends on the locality where the carts are hired, and the country to be visited. Carriers would cost from Cts. 50 to Rs. 1 per day each.

Camp equipment requires tents, camp beds, chairs, tables, cooking utensils, table furniture, blankets, mosquito curtains, towels, clothing in an air-tight tin box or uniform case, medicines such as quinine, arsenious acid, chlorodyne, corrosive sublimate tabloids as antiseptics, lint, bandages, lancet, tweezers, sacking needles, twine, coir rope, axes, billhooks, buckets, hunting knife, skinning knives, skin preservatives, pocket steel tape, compass, matches, travellers' filter, candles and water bottles. Maps on various scales can be procured at the Survey Office, Colombo, and are almost a necessity.

Provisions *must* include ample supplies of rice and curry stuffs for the men—usually very difficult to procure in jungle country, so that they should be purchased at the starting point or last point of "civilisation."

A visitor can purchase anything and everything in the way of tinned goods, preserved soups, &c., in Colombo or Kandy, but must remember that transport is not easy in the jungle,

so that soda water and such like will not be easily carried. Water is usually pretty bad in the low-country, and should always be filtered before use, though if used for teamaking unfiltered the boiling will have about killed all germs.

For clothing khaki is excellent, or the greenish coloured "hunting cloth"—always bearing in mind the intense heat of the low-country. A solar topee *must* always be worn when any walking has to be done in the sun—this is an imperative necessity.

As space is somewhat limited, of necessity, complete details of the foregoing matters cannot be fully dealt with, but the visitor will find the whole ground of Ceylon sport fully covered and brought up to date in Storey's "Hunting and Shooting in Ceylon" (Longmans, Green & Co.)

Finally, visitors are informed that there exists a "Ceylon Game Protection Society," the address of the Hon. Secretary of which can be ascertained from the Directory. A letter to the Hon. Secretary, and a donation to the Society, would be the means of procuring valuable assistance and information.

Chapter XV.

SPORTS AND GAMES.

A BRIEF word may be given to this subject. Sport with the gun is dealt with by Mr. Storey in the preceding chapter. Sport with the rod is chiefly engaged in about Nuwara Eliya and Horton Plains, where trout have been introduced, and where there is a fishing club, from whom licenses must be obtained. Hunting is indulged in up-country, where packs are kept for the pursuit of elk (sambur), jackal, pig, hares and red deer.

Racing is vigorously pursued in Colombo, and at Kandy, Nuwara Eliya, Darrawella, Radella, Badulla, Taldua, and Galle. Boating and yachting only in Colombo.

Polo is played in Colombo, Nuwara Eliya, and Elkaduwa, but the vigour with which this sport is pursued usually depends upon the tastes of the military and of the staff at Government House.

Cricket is probably the most popular game in the island, and there are many good clubs. The standard of play among the younger natives, more particularly, is high, and the Colts Club, in Colombo, is the strongest in the island. Tennis is played everywhere, on gravel courts, and the standard of play is high. Football—especially Rugby—and hockey are also popular, and golf has a great hold upon the community, very fine links being available in Colombo, Nuwara Eliya, &c.

PART V.—MISCELLANEOUS.

Chapter XVI.

NATIVE OR OTHER WORDS IN USE IN CEYLON, NOT IMMEDIATELY INTELLIGIBLE TO A NEWCOMER.

THOUGH English people in Ceylon do not so completely interlard their conversation with native and other words as do their confreres in Northern India, there are yet many words in use here which must sound strange and unintelligible to the newcomer, and a list of the more common is therefore given here.

Advocate, a barrister.

A. G. A., Assistant Government Agent.

Almira, a detached cupboard or wardrobe, p. 108.

Appu, a head servant, p. 106.

Arachchi, the lowest grade of headman, p. 134; rank sometimes honorary.

Asweddumize, to bank up and irrigate (for paddy).

Bandicoot, a large rat, p. 20.

Bandy, a hackery.

Banian, an undervest; banian day, the day before beef-day.

Barbecue, a drying ground.

Bazaar, a street of shops.

Beef-day, the day, usually Tuesday and Friday, when supplies of meat are to be had in the markets.

Betel, Areca, p. 52.

Bloodsucker, a large lizard, p. 22.

Bo, p. 65.

Boutique, a shop in a Sinhalese village, p. 105.

Boy, a servant.

Breakfast, p. 94.

Break of monsoon, p. 14.

Bulk, p. 57.

Bund, an earthwork dam, p. 74.

Burgher, p. 85.

Cadjan, a plaited coconut leaf, p. 47.

Caste, p. 96.

Cake, p. 48.

Ceiling cloth. The ceiling in a house is often made of canvas, stretched tightly and whitewashed.

Chatty, an earthenware pitcher, p. 94.

Checkroll, the register of coolies and of the days' work that they do.

Cheddi (Tam.), scrub vegetation.

Cheetah, a leopard, p. 19.

Chekku (Sinh.), an oil mill, consisting practically of a large pestle and mortar, turned by cattle or buffaloes.

Chena (Sinh. hena), p. 37.

Chetty, a South Indian caste of money-lenders, p. 84.

Chit, a note.

Chunam, lime, p. 52.

Cloth, the waist cloth of a coolie, &c., p. 88.

Coast, India. A coolie is said to have gone to his coast when he has left for India. Coast bull, p. 18.

Coir, p. 48.

Comboy, a cloth, p. 88.

Compound, the garden round a house.

Conductor, the native under-superintendent of an estate.

Coolie, p. 54.

Coppersmith, a bird, p. 21.

Copra, p. 48.

Creeper, a pupil on an estate, p. 54.

Cumbly (Tam.), a coolie's blanket covering.

Curry, p. 93.

Dagoba, p. 79.

Dhoby, a washerman, p. 91.

Dhoni (Tam.), a boat.

Dhurri, a rug.

Dry grains, cereals, &c., that can be grown without irrigation.

Durai (Tam.), master.

Early tea, the first meal of the day, p. 94.

Ela, an irrigation canal.

Elephant kraal, p. 19.

Elk, a sambur deer, p. 18.

Estate, a plantation worked by hired labour, p. 53.

Firing, drying (tea), p. 57.

Fiscal, p. 134.

Flush, the young shoots of tea, p. 55.

Fut, see Phut

G. A., Government Agent, p. 134.

Gansabhawa, p. 134.

Gecko, a wall lizard, p. 22.

Gharri, a horse carriage.
Ghee, native butter.
Godown, a store-room or outhouse.
G. O. H., the Grand Oriental Hotel.
Government Agent, p. 134.
Gymkhana, a "games" meeting.
Hackery, a passenger bullock carriage, p. 113.
Headman, p. 134.
Jaggery, palm sugar, p. 48.
Jak, a tree, p. 66.
Jât, kind, species, race.
Jungle, forest or high scrub.
Jute hessian, the coarse canvas of which tea tats, &c., are made, p. 56.
Kabuk, p. 2.
Kachcheri, the office of the G. A., p. 134.
Kaddy, a small shop.
Kanak, an account.
Kanakkapulle, an accountant.
Kangani, an overseer, p. 54.
Kantoor, an office, p. 108.
Katti (Tam.), a knife.
Kitchen coolie, p. 106.
Kitul, a palm, p. 66.
Kondé (Sinh.), a hair knot, p. 90.
Kurumba, (Sinh.), a young coconut.
Land wind, the north-east monsoon, which blows more off the land.
Leaf, the picked tea leaf, p. 56.
Lewaya, a salt lagoon, see Hambantota in Towns.
Lines, coolies' dwellings, p. 54.
Long chair, a chair with prolongations to the arms, on which the legs can be rested.
Longshore wind, p. 15.
Lovegrass, p. 67.
Low-country, the country below the elevation of, say, Kandy.
Mamoti (Tam.), a digging hoe.
Mana grass, p. 67.
Monsoon, p. 13.
Moorman, p. 87.
Mud and wattle, p. 92.
Mudaliyar, p. 134.
Muhandiram, the rank below Mudaliyar, but above Arachchi.
Muttu (Tam.), a horsekeeper.

Name, a coolie who is entered in the checkroll as having done a full day's work is said to get his name, if half a day, half-name.

Nelu, p. 61.

Ola, p. 126.

Paar, a bank on which pearl oysters may grow, p. 24.

Pada boat, p. 104.

Paddy, rice in the husk, p. 4.

Pandal, a triumphal arch of areca palms, &c., woven over with leaves, &c.

Pansala, a priests' dwelling, p. 97.

Pariah-dog, p. 20.

Patana, a grassy expanse, p. 61.

P. D., periya durai.

Perahera, a religious procession, p. 98.

Periya (Tam.), great; periya durai, chief superintendent.

Peon, a messenger.

Phut; to go phut, to collapse or abort

Pingo, a "yoke," p. 52.

Plantain, a banana, p. 50.

Podiyan (Tam.), a small boy.

Pokuna, a bathing tank, p. 117.

Poochie, an insect.

Poonac, p. 48.

Popadam, p. 94.

Proctor, a solicitor, p. 135.

Pucka, permanent, first rate.

Puja, worship.

Puttee, a spiral legging.

P. W. D., Public Works Department, p. 135.

Raincoat, a macintosh.

Rajakariya, forced labour, p. 115.

Ramasami, a Tamil coolie, p. 99.

Resthouse, a roadside inn, kept up by the Government, p. 136.

Rice, meals; go to your rice (addressed to a servant, &c.), go to your meal.

R. M., Ratemahatmaya, p. 134.

Roll, p. 57.

Sambal, p. 94.

Sannas, an inscribed stone, p. 119.

Santosum, a tip or present.

S. D., sinna durai, assistant superintendent.

Seer, a fish, p. 22.

Shoeflower, p. 68.

Shuck, good-for-nothing.

Suma (Tam.), idly.

Tamasha, a "function," p. 115.
Tamby, a merchant on the small scale.
Tank, an irrigation lake, p. 74.
Tappal, post (letters).
Tapping, p. 51.
Tat, a mat of canvas or split bamboo, often hung in front of a verandah to keep out the glare; used for tea withering.
Tavalam, p. 105.
Terai hat, a soft felt hat.
Tick, an unpleasant insect, which bores into the skin, p. 122.
Tiffin, lunch.
Toddy, p. 47.
Topee, a sun-hat.
Totum (thottam, Tam.), an estate or garden.
Tundu (Tam.), a note, generally used for the notes sent round among planters announcing that so many coolies will be paid off on receipt of the amount owed by them in debts.
Up-country, the country above or about the Kandy level.
V. A., visiting agent, p. 54.
Vedarala, a native doctor, p. 114.
Vihara, a house for the images, p. 109.
Village, p. 78.
Wanderoo, a monkey, p. 19.
Wattle and daub, p. 92.
Windbreak, a belt of trees planted through an estate.

Chapter XVII.

NOTES AS TO HEALTH, CLOTHING, &c.

THE following few notes may prove useful, but everyone residing here for more than a few months should procure Dr. Chalmers' "Simple Medical Directions (Record Office, Rs. 1.)

The three common, troublesome, and often dangerous complaints which affect the health of Europeans in this country, are malaria, dysentery, and enteric fever, and there is no reason why with proper precautions one should suffer from any of them. Once infected with malaria, it may of course recur numerous times without a fresh infection, but to get that first infection one must apparently be bitten by an Anopheles mosquito. This is the slim, rather needle-like mosquito, which is very common in most of the low-country, especially to the north, and which sits upon the skin, and also bites, with its body sloping upwards, so that the tail is much higher than the head. The Culex and other harmless mosquitoes, on the other hand, sit, and bite, with their bodies parallel to the skin. The Anopheles rarely flies during the full light of day, but comes out freely about 5-30, and as a fair proportion of these mosquitoes are carriers of fever, the great thing to be attended to is to avoid being bitten. They are especially prone to attack the ankles and insteps, so that boots should be worn, not shoes. The chair in which one sits should have a cushion or other article on the seat, and the knees, which may be bitten through the clothes, should have an extra protection in the form of a second covering, or be well oiled with protective oil. There remain then only the hands and face to be protected and this may be done by oiling them with citronella oil, or better, with the mixture of citronella, coconut, and kerosene oils, known as "Bamber-Green oil," and to be procured at local chemists. The hands may be protected with thin kid gloves if the mosquitoes are really very troublesome, and the head enveloped in a veil. If one should, in spite of all precaution, be unlucky enough to get an attack of fever, reference must be made to Dr. Chalmers' book, or to the nearest medical man.

Dysentery and enteric fever are mainly carried by impure water and milk, two things about which the newcomer tends

to be careless. It must be clearly recognised that water should always be boiled and filtered through a Pasteur or Berkefeld filter (which must be kept clean), and that milk should be boiled. Personal attention to this is desirable, at any rate in outlying districts, and care must be taken to see that the servants (as not infrequently happens) do not bore holes in the filter candles to ensure rapid "filtration." If these simple precautions be taken, there is almost no reason to fear an attack of either of these complaints.

One great rule of health in the tropics is to avoid chills, which are more readily taken the warmer the climate, and which may lead to all kinds of complications. If one is not infected with malaria or dysentery they will usually only give rise to diarrhœa, but if the infection be in the system, these complaints are likely to appear. If the weather be wet, one is very liable to catch a chill in the thin suits of white drill or Colombo cloth often worn in the low-country. The safest kind of clothing for general wear is the thin flannel now made in all sorts of tweed-like patterns. A body belt of woollen is a very useful guard, but is difficult to leave off after it has once been worn. For up-country a sweater or coat is required to put on at sundown, when it often gets suddenly chilly. A very important point to be carefully attended to is to change the clothes if damp, and never to sit in a draught in such circumstances.

Exposure to the sun should be avoided where possible, and one should never go out till about 5 p.m. without a sun-hat or topee. Fashions in these articles change, and the present fashionable one in the island is the khaki-coloured "pig-sticker."

For tramping about up-country, and to keep out leeches and ticks, the ordinary Indian spiral legging or puttee is generally employed. Brown boots are more popular than black. Tennis is played in flat leather shoes. A macintosh, or raincoat as it is locally called, is almost indispensable in this rainy climate, and an umbrella is habitually carried in the towns.

Ceylon is not a particularly depressing climate, and alcohol is not necessary till after sundown. Scotch Whisky is perhaps the safest drink but should be avoided during the day. The kurumba (p. 48) is the safest drink when travelling in the low-country.

No one should travel in this country without a supply of quinine, chlorodyne, and citronella oil.

Chapter XVIII.

BOOKS ON CEYLON.

A FEW of the many books upon Ceylon are mentioned below, and chiefly those which can be fairly easily obtained, and read with pleasure.

Knox, An historical relation of the island of Ceylon. London, 1681. (Knox was for many years a prisoner in Kandy, but finally escaped).

Percival, An account of the island of Ceylon. London, 1803.
Cordiner, A description of Ceylon. London, 1807.
Forbes, Eleven years in Ceylon. London, 1840.
Tennent, Ceylon. London, 1859.
Baker, Eight years in Ceylon. London.
Baker, with rifle and hound in Ceylon. London.
Cumming, Two happy years in Ceylon. London, 1892.
Cave, Golden Tips. London, 1900.
Cave, The ruined cities of Ceylon. London, 1897.
Wijesinha, The Mahawansa. Colombo, 1889.
Copleston, Buddhism. London, 1892.
Trimen, Flora of Ceylon. London, 1893-1900.
Tennent, Natural History of Ceylon. London, 1861.
Storey, Hunting and Shooting in Ceylon. London, 1907.
Ferguson, Ceylon Handbook and Directory. Colombo.
Skeen, Guides to Colombo and Kandy.
Still, Guide to the buried cities.
Macmillan, Guide to the Peradeniya gardens.
Ceylon Civil List, &c.

INDEX.

	PAGE.
Abhayagiriya dagoba ...	120
Acalypha	65
Adam's Bridge	24
Adam's Peak	97
Agriculture	38
Alexandrite	5
Aluwihare	130
Ambustala dagoba ...	122
Amethyst	4, 5
Amherstia	65
Andalusite	6
Animals	17
Ankeliya	110
Ants, 23; white ...	23
Anuradhapura	117
Apatite	3
Aquamarine	5
Arrack	48
Archæology	116
Architecture	109
Area cultivated	11
Areca	52
Art	108
Asbestos	3
Bamboo	65
Bandicoot	20
Barbet	21
Bathing	92
Bats	17
Bear	17
Beryl	5
Big monsoon	13
Birds	20
Blacklead	2
Bloodsucker	22
Bo	65
Botany	35
Brahma	99
Brasswork	109
Brazen palace ...	117
Breadfruit	65
Buddhism	78, 97
Buddhist priests	97
Buffalo	17
Bulking tea	57
Bullocks	17
Burghers	85

	PAGE
Cabragoya	21
Cacao ...	...41, 58
Cadjan	47
Cairngorm	5
Camphor	41, 65
Canals	0
Canoes	105
Carbuncle	5
Cardamoms	41, 59
Cassiterite	3
Caste	96
Castor oil	65
Catseye	5
Ceara rubber	65
Ceylon, origin ...	1
Cheetah	19
Chena ...	... 37, 50, 71
China clay	2
Chocolate	58
Christianity	101
Chrysoberyl	5
Cicada	23
Cinchona	40
Cinnamon ...	38, 39, 62
Cinnamon stone ...	5
Citronella	63
Climate	12
Climatic zones ...	...14, 35
Climbing fish	22
Clothing	87
Cobra	22
Coca	41
Cocoa	58
Coconut ...	...42, 47
Do cabbage ...	47
Do oil	48
Coffee	40, 65
Coin	48
Colloquialisms ...	240-244
Colonial Secretary... ...	134
Common cultivated or wild plants	64
Conquests, Dutch ...	82
Do English... ...	82
Do Portuguese ...	81
Do Sinhalese ...	78
Do Tamil ...	79

	Page.
Coolies ...	42, 54
Coppersmith ...	21
Copra	48
Cordierite	60
Corundum	3
Cosmas Indicopleustes ...	7
Cotton	65
Cotton tree	65
Creeper	54
Crocodile	21
Croton	66
Curry	93
Customs	114
Dadap	66
Dagoba	79
Dambulla	129
Dampness of air	13
Deer	18
Devil dancers	98
Dhoby	94
Dog	20
Drink	94
Dry Country chena ...	63
Do forest ...	63
Dutch conquest ...	82
Education	101
Elephant, 19; Kraal ...	19
Elk	18
Emerald	4, 5
English conquest	82
Estates	40
Europeans	84
Exacum	66
Executive Council	133
Felspar	6
Fireflies	23
Firing tea	57
Fish	22
Do walking Do singing ...	22
Do climbing	
Fishing	105
Food	93
Forest ...	37, 70
Formation of pearls ...	33
Frogs	22
Furcræa	66
Furniture	93
Gadaladeniya	131
Galle	8
Games and sports	110
Gansabhawa	134
Garden cultivation at Jaffna	64
Garnets	5
Gecko	22
Gems	3
Geography	7
Gneiss	1
Gold	3
Golden oriole	21
Government, 133; Agent	134
Granites	2
Graphite	2
Green manuring ...	58
Green tea	57
Grevillea	66
Habits of mind and body ...	114
Headdress	89
Health ...	245, 246
Hinduism	99
History	77
Hospitals	114
Houses	92
Hyacinth	5
Hygiene	113
Indiarubber	41
Insects	22
Do leaf	22
Do stick	22
Iron ore	3
Irrigation	74
Isurumuniya vihare ...	121
Ivory work	109
Jacinth	5
Jaekal	19
Jaggery	48
Jak	66
Jargoon	5
Jetawanarama dagoba ...	120
Jewellery	109, 6
Jungle fowl	21
Kabuk	2
Kalawewa	128
Kandy, conquest of... ...	83
Kanganies	54
Kaolin	2
Kasyapa I	80
King's palace	119
Kitul	66
Konde	90
Kurumba	48
Labour	54
Lacquer work	109
Lagerstrœmia	66
Lakes	9
Language	107
Lankarama	118
Lankatilake	131
Lantana	66
Lapidary	6
Lark	21
Laterite	2
Leaf insects	23
Leapfrog	110
Legislative Council ..	133
Lemon grass	63
Leopard	19
Lime	67

	PAGE.
Limestone	2
Literature	247
Little monsoon ...	13
Lizard	22
Longshore wind	15
Loranthus	67
Lovegrass	67
Macaque	19
Magpie robin	26
Mahaseya dagoba ...	122
Mahawansa	77
Mahinda	78
Malabar invasions	79
Mammals	17
Managrass	67
Mango	67
Do bird	21
Mangroves	62, 67
Marbles	110
Medical treatment ...	113
Mica	2
Mice	20
Mihintale	121
Mikania	67
Minerals	2, 3
Minneriya	129
Mixed garden cultivation ...	49
Mohammedanism ...	100
Mohammedans	81
Molluscs	23
Molybdenite	3
Mongoose	19
Monkey	19
Monks	97
Monsoon	13
Moonstone	6
Moormen	87
Mountain	8
Mousedeer	19
Music	110
Mussænda	67
Names	95
Nightjar	21
Occupations	104
Orange	67
Orchid	61
Otter	20
Paars	24
Pada boats	104
Paddy fields	43
Painting	109
Palmyra palms ..	64
Papaw	67
Paradise flycatcher ...	21
Parakrama Bahu 81 & figure	80
Pariah dog	20
Parrot	21
Peafowl	21
Pearls	24
Pearl fishery	23, 24
Pegmatites	2
People	84
Pepper	68
Perahera	98
Physique	94
Pingo	52
Pithecolobium	68
Plantains, cultivation of	50
Planter	54
Platinum	3
Plumbago	2
Polonnaruwa	126
Poonac	48
Porcupine	20
Portuguese conquest ...	81
Precious stones ...	3
Ptolemy	7
Python	22
Queen's palace	118
Quinine	40
Railways, ...	10, 148
Rajakariya	115
Ramasami	99
Rankot dagoba ...	127
Rats	20
Ratsnake	22
Religion	97
Resthouse	136
Rhododendrons	68
Rice	38
Rice fields	43
Ritigala	131
Rivers	9
Roads	136
Rocks	1
Rodiyas	97
Ruwanweli dagoba ...	117
Rubber	41, 50
Ruby	3
Do star	4
Sacred bo ...	78, 121
Sambur	18
Sapphire, water	6
Do white ...	3
Do blue	4
Sapu	68
School gardens	103
Scorpion	23
Seer	22
Sensitive plant ...	68
Servants	106
Shoe flower	68
Shop keeping	105
Shore plants	63
Sigiriya ...	80, 122
Silk cotton tree ...	68
Silver work	109
Sindbad	8

	Page.
Singing fish	22
Sinhalese	85
Siva	99
Smelting	3
Snail	23
Snakes	22
Sparrow	21
Spider	23
Spinel	5
Squirrel	20
Star ruby	4
Do sapphire	4
Steel	3
Stick insects	23
Sunflower	68
Swami tree	99
Talipot	68
Tamarind	68
Tamils	86
Tanks	74, 78, 79
Tapping	52
Tavalam	105
Tea	41, 53
Temperature	12
Temple tree	68
Termites	23
Thoria	7
Thorianite	7
Thuparama dagoba	118
Tic-polonga	22
Tinstone	3
Toad	22
Toddy	47
Topaz	4, 5
Tourmaline	5
Towns	10
Travelling	113
Tree fern	61, 69
Types of vegetation	42
Up-country forest	60
Do patanas	61
Vanilla	41
Veddahs	77, 87
Vegetation	35
Vihara	109
Village	78
Vishnu	99
Walking fish	22
Wanderoo	19
Water sapphire	6
Weaving	110
Wet low-country vegetation	36
White ants	23
White sapphire	3
Wijaya	77, 78
Wind	14
Windowpane oyster	34
Wound response	51
Zircon	5
Zoology	17

For towns &c. see Chap. XIII.
,, colloquialisms ,, XVI.

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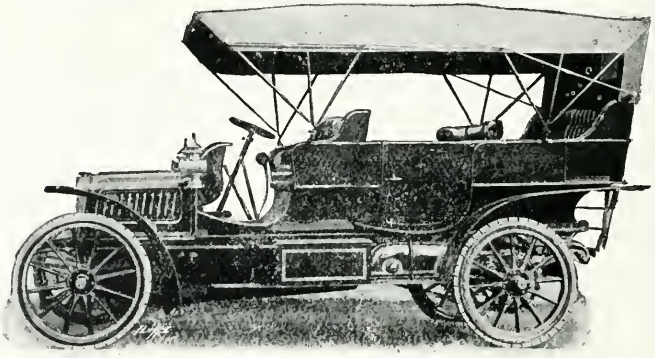

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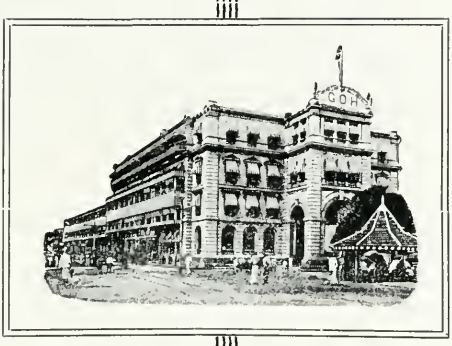

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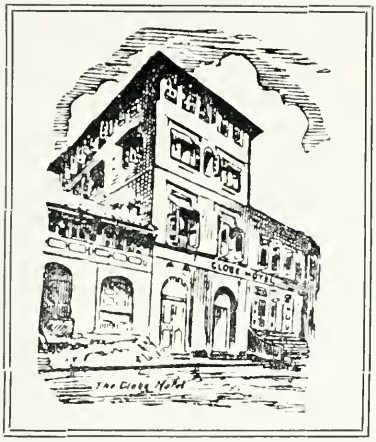

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B. N. BORNEO.—The Manager of a Rubber Plantation Company B. N. Borneo, writes 29th May, 1907 :—"We have pleasure in acknowledging your favour of the 22nd ultimo with invoice for seeds and stumps amounting to Rs. 4,250, and in advising that these have all come to hand in very good condition. We are very satisfied with the quality of the stumps ; as to seeds we shall advise you in due course."

SAMOA.—Touching a shipment of 100,000 para stumps, Mr. Francis Harman, Managing Director, Upolu Cacao Company, Samoa, writes to the *Ceylon Observer* of 22nd February, dated 17th January, 1907 :—" Our Rubber stumps, purchased from William Bros., Henaratgoda, were a great success. We have about 90 per cent good in the nursery." Subsequently Mr. Harman writes in March, 1907, touching a further shipment :—"The stumps turned out wonderfully well considering the long time they had been on the way."

UGANDA.—*A Colombo Firm* in ordering a further supply of Hevea seed for Uganda, writes to our Agent, Mr. E. B. Creasy, at Colombo. 26th February, 1906 :— "We have been informed that Hevea seeds forwarded from Messrs. William & Bros. have turned out very good, one lot showing 100 per cent. germinated seed."

DOMINICA.—The Curator of a Botanic Garden in Dominica in ordering four separate lots of Para Rubber seed, writes 3rd May, 1907 :—"I hope you will be able to do your best for us, as we have given you a good advertisement in this part of the world by publishing your Circulars in the Official Gazette and the local papers."

LIBERIA.—*The Secretary of a large Rubber Corporation* in ordering a supply of Hevea seeds for Liberia, writes, London, 3rd September, 1906 :—"I am strongly recommended by the authorities at——who are interesting themselves in the experiments, to obtain a consignment of Hevea seed from Ceylon. They have kindly furnished me with your name and address as Merchants of Hevea seed who can be thoroughly trusted."

ZULULAND.—Our Agent, Mr. E. B. Creasy, writes 30th June, 1907 :—"I am in receipt of an enquiry from a firm——of Zululand *re* Para Rubber seed, and they mention your firm as supplying reliable seed."

MEXICO.—*J. B. Sanborn, Esq.*, President, Orizaba Rubber Plantation Company, (Mexico), writes dating General Office, 21 Quincy Street, Chicago, Ill. U.S.A. : " Referring to the shipment of 5,000 Hevea stumps from you last summer, I beg to advise you that after being 85 days on the ocean these plants were received at the plantation (in Mexico), and I am pleased to advise you that out of the 5,000 plants we have at the present 4,188 trees apparently growing with every prospect of success. I send you this information as it may be of interest to you, as it is gratifying to us."

FIJI.—In giving a repeat order for Para stumps, a Fiji Planter writes 2nd April, 1907 :—"The last lot sent in January last proved most satisfactory."

The India Rubber Journal of 19th November, 1906, quotes from the "Tropenpflanzer," touching one of our Para stump shipments : —"The writer saw 100,000 of these stumps which had just been planted out, none were dead, and many were putting out new roots. The Ceylon consignors, J. P. William & Bros. Henaratgoda, guarantee a mortality not exceeding 25 per cent. and the Manager of the Upola Company, estimated the loss on this batch at 2 per cent only. This is decidedly the best method of transporting Heveas."

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"SOUTH AFRICA."—The great authority on South African affairs of 25th March, 1889, says :— "An interesting Catalogue reaches us from the East. It is issued by WILLIAM BROS. Tropical Seed Merchants of Henaratgoda, Ceylon, and schedules all the useful and beautiful plants which will thrive in tropical and semi-tropical regions. We fancy Messrs. Williams should do good business, for now that the great Powers have grabbed all the waste places of the earth, they must turn to and prove that they were worth the grabbing. We recommend the great Powers and Concessionaries under them to go to William Brothers.

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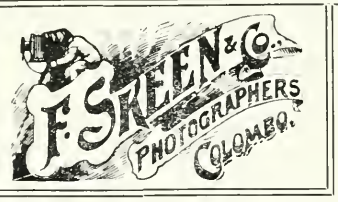

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